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## ESSAYS, MONOGRAPHS, AND CASES.

*Obstetrical Notes, based on 1,000 Cases of Delivery.* Read at the Annual Session of "The Medical and Chirurgical Faculty of Maryland," in June, 1859, as the Report of the Committee on Obstetrics. By WILLIAM M. KEMP, M.D., of Baltimore, Md.

We propose to analyze the first one thousand cases of delivery that occurred in our experience, and to offer such thoughts and comments as may be deemed appropriate, under the respective heads which usually include the facts of midwifery statistics. We have taken the first thousand cases as they are registered, and limit the analysis to them, for want of time to consider the entire register, in readiness for the meeting of the Faculty.

The condensed character necessary for a report, precludes enlargement upon several topics of momentous importance, which it behooves the accoucheur to understand, and with which he is morally bound to acquaint himself, so as to be furnished for emergencies, or for prompt action, where delay or want of information may entail an unnecessary degree of suffering or mental anxiety on the parturient patient. We shall present the subject as it relates,

- 1st. To the mother.
- 2d. To the child.

## PERTAINING TO THE MOTHER.

1st. *Whole Number of Children.*—The 1,000 cases of delivery produced 1,019 children; nineteen of the cases having borne twins.

2nd. *Age of the Mother when Delivered.*—I have not preserved a record of the ages of the mother in a sufficient number of cases to make the exhibit of any interest or value. The extremes of the ages, however, are accurately stated at 15 years and 43 years.

3rd. *Number of Times the Mothers had been Pregnant.*

Pregnancies.....	1	2	3	4	5	6	7	8	9	10	11	12	13
Mothers.....	213	165	130	84	48	30	12	12	3	5	2	5	1

It will be perceived that only 710 pregnancies are noted. There is difficulty in obtaining absolutely accurate numbers, in many cases, growing out of intercurrent abortions and miscarriages. The preceding table furnishes the following proportions in a thousand labors. The table is to be read thus: in every thousand cases, 300 will be first pregnancies, &c.

## PROPORTION OF DIFFERENT PREGNANCIES IN 1,000.

Pregnancies.....	1	2	3	4	5	6	7	8	9	10	11	12	13
Proportion.....	300	232†	183†	118†	67†	42†	16†	16†	4†	7†	2†	6†	1†

4th. *Duration of Labor.*—I shall not offer any table of the duration of the labor. The difficulties which frequently embarrass the determining of the commencement of actual labor-pains, and the different phenomena which are regarded by different observers as constituting the commencement of labor, must give great uncertainty to the value of any such table, unless it be accompanied by lengthy notes and explanations. These would swell the present paper to an unjustifiable size. The recurrence of pains, with short intermissions, is usually regarded as diagnostic of incipient labor. This cannot be a fundamental truth. Women are frequently sorely distressed by pains of an intermittent character, accompanied by hardening of the uterus and tension of abdominal walls, imparting to them a sensation similar to the initial pains of former labors; and yet these pains may not be provoked by the cause of labor, but be dependent upon some trouble in the alimentary canal, or disorder in some other organ. I do not regard pain, *per se*, even of an intermittent character, as an indication that labor has commenced.

The commencement of labor should be acknowledged only when the pains are discovered to have a certain bearing on the os uteri, and on the uterine contents. The pains which constitute the commencement of labor will almost always be found to produce the same effects, and these effects will generally be in the same order of sequence. Upon *touching*, the following phenomena will be discovered if labor has really begun: Upon the incursion of pain, the margin of the os uteri becomes more rigid; the presenting part of the foetus recedes from the finger; a greater or less quantity of amniotic water depresses the membrane within the os; and when the pain reaches its acme, the presenting part of the foetus will again be brought down to the os uteri.

Although occasional cases occur in which the preceding circumstances obtain, and labor does not follow promptly, they must nevertheless be regarded as exceptional, and detract but little from the value which justly attaches to the signs as indices of imminent accouchement.

In an elaborate argument upon the order in which different portions of the uterus act in parturient pain, Wigand furnishes an account of the phenomena which constitute genuine pain. It is only pain characterized by these peculiarities which should be regarded as the commencement of labor. Ramsbotham says emphatically that "the presence of pain, even if it be periodical, is not always symptomatic of labor having begun."

The presence of a considerable quantity of vaginal fluid is not necessarily indicative of the commencement of labor.

Again, I am satisfied that tables of the duration of labor will exhibit different results, corresponding to the practical views entertained by the practitioners, who respectively tabulate the results of their experience, and that the value of such tables can only be estimated when the peculiar precepts which govern the practice are clearly stated.

There are two great classes of obstetricians, between whom the views entertained as to the manner of conducting a labor, form a line of distinction marked and emphatic. The comparative duration of labor, as experienced by these two classes of accoucheurs, in an extended series of cases, would be considerably discrepant, from the very principles by which the procedures of the two would be regulated. These two classes may be designated thus:

1st. Those who believe that a labor, in which the presentation is normal, and the position of the presentation is favorable to unassisted

delivery, should be permitted to pass through its stages without interference on the part of the accoucheur, *provided no symptoms involving the life or physical safety of the patient arise.* The probable duration of the labor and the possible evils to result from it are not allowed to weigh against the emphatic precept, "A meddling midwifery is bad." The great precept with this class is, to wait patiently for the processes of nature.

2nd. Those who inculcate the necessity for a steady exercise of patience in simple cases, but who nevertheless are convinced that it must be exercised with a limitation. They hold, that oftentimes the stages of a labor may be abridged by judicious assistance; that the accoucheur is morally bound to study the indications for, and the manner of, rendering this assistance; and that the parturient woman is entitled to, and of right ought to have, such assistance judiciously and opportunely administered.

In the ranks of the former class we find the names of those who are high authority in midwifery, and who have exercised a swaying influence over the professional mind of this country. In the front of these is Blundell, made so conspicuous among them by his boldly and often carefully repeating the aphorism, "A meddling midwifery is bad." Not the first in order of time, he is perhaps the most emphatic on this point.

Denman, in his instructions for the conduct of a labor, says, "he (the accoucheur) can do nothing until the womb dilates to admit the passage of the infant." Quotations from authors inculcating these views might be greatly multiplied, but the necessary limits of this paper preclude a more extended reference here.

In opposition to these views we have the dogma of Hamilton, that "the termination of the *first stage* of labor *should be secured* within twelve or fourteen hours from its actual commencement;" and his unequivocal assertion to support it, that "no patient under his charge for twenty-five years, has been above twenty-four hours in labor; and except in cases of disproportion, none so long." Not less decided is Burns, "that if a long time is spent in accomplishing the first stage of labor or dilatation of the os uteri, the vigor of the uterus and strength of the patient may be impaired so much as to render the subsequent stage dangerously tedious, or to prevent its completion, at least, consistently with safety. *The first stage of labor ought always to be accomplished within a certain time, varying somewhat according to the constitution of the patient and the degree of pain. If the pains be continuing without suspension, or an interval of some hours, and the*



labor be going on all the time, but slowly, it is a good general rule to effect the dilatation of the os uteri within ten or twelve hours, at the farthest, from the commencement of labor." (James Burns, edit. 1839, pp. 309-310.) Professor Miller, of Kentucky, a very profound thinker and philosophical actor in obstetrics, is perhaps the strongest American advocate for the propriety and importance of these rules of practice. After an interesting consideration of the subject, and a tolerably full *résumé* of the question, he adds: "I have for many years been in the habit of employing them under the circumstances which have been pointed out in a great number of cases, and no evil consequences whatever have resulted, but labor has been greatly assisted, and many accidents, as I am firmly persuaded, have been averted. My testimony, founded on experience, is, therefore, in favor of the safety and efficiency of the practice." (*Human Parturition*, 1849, p. 150.)

To pursue this subject further would occupy too much space in a paper like the present, although it merits the most considerate attention. A thorough acquaintance with its practical details will enable the accoucheur to abridge, by hours sometimes, the suspense and suffering of the parturient woman.

5. *Flooding*.—I cannot give an accurate account of all the cases attended by hæmorrhage. Those which were unattended by any particular interest in the circumstances or treatment, were merely indicated without any detail. It would not be proper to rely upon memory to supply the particulars. The memoranda of some cases have been made with care, and it may not be uninteresting to advert to a few.

*Flooding before Six Months*.—A lady who was delivered on January 6th, 1844, was attacked by copious hæmorrhage on the preceding 27th of August. Notwithstanding its arrest by perfect quietude, cool local applications, and internal means, it recurred frequently without any apparent provoking cause, and unattended by any pains of labor. Her strength finally became greatly reduced, and her general condition anæmic. The plan of treatment was essentially altered, and directed mainly to the reinvigoration of vital forces. She was taken from her house in a carriage properly prepared, and sent by steamboat on excursions on the Chesapeake Bay, to receive the impression of mental gratification and bodily exposure to air impregnated with sea-salt. The effect was very manifest; her improvement in all respects marked. The hæmorrhage disappeared, and she went until within a fortnight of her calculated time for accouchement. She gave birth to a living daughter, weighing five pounds.

*Hæmorrhage during Labor.*—Mrs. D. was taken with profuse hæmorrhage upon the first signs of labor, at 2 o'clock, A. M., on August 13. I was summoned immediately. Initial pains of labor occurred at moderately long intervals. Os uteri was very slightly opened, and a small portion of the margin of the placenta found over the os uteri. Perfect quietness was observed, and ice administered in small, but repeated portions; an enema of cold water was administered, which produced an abundant discharge of feces. The tonic contraction of the uterus was unusually well maintained, and the presenting part (vertex) remained applied to the placenta. The first stage of labor was tardy, the os uteri opening slowly. When it became sufficiently dilated and soft, the membranes were ruptured, and delivery occurred at 2½ o'clock, P. M. The child, a girl, was dead. The mother convalesced without difficulty.

*Hæmorrhage after Birth of Child.*—Cases need not be multiplied. Practical procedures are more worthy of consideration. As hæmorrhage under these circumstances always depends upon partial separation of the placenta, and will be arrested only when the separation of the mass becomes complete, it has been invariably a rule to effect the separation and delivery of the secundines without delay whenever flooding occurs.

An appreciation of the proper agency, by which the separation of the placenta is effected, is necessary to the adoption of the most direct means to excite that power when it is not brought into action opportunely or with sufficient vigor to detach the mass.

It is *not* the alternate or expulsive contractions of the uterus that effect the separation of the placenta.

*The agent which detaches the placenta from the uterine surface is the tonic contraction of the uterus.* This contraction, when fully exerted, separates and casts down the placenta upon the os uteri, whence it may readily be delivered. Frictions upon the abdomen over the uterus, alternated with compression of the uterus through the abdominal walls, will almost invariably induce the tonic contraction. Where the abdominal walls are much relaxed it will be found exceedingly serviceable to embrace the fundus, as much as possible, in the hand, formed into a cup shape, and thus to exert compression, following the fundus as the contraction of the body of the uterus draws it downward. Maintaining the hand in this position for a few minutes, will generally insure permanency of this contraction.

It must be an ever-remembered principle, not to use a tampon in any shape or form after the fœtus has been extruded from the uterus.

*Hæmorrhage after Birth of Child, with Hour-glass Contraction of Uterus.*—Hour-glass contraction of the uterus confining the placenta has occurred in five cases. The same general circumstances attended all the cases, and all were relieved by the same procedure.

Mrs. M. was confined at 10 o'clock, A. M., in an easy first labor; uterus well contracted on after-birth; after a short interval she complained of agonizing pain in the uterus, accompanied by a profuse hæmorrhage. The womb was found elongated, and examination discovered a firm hour-glass contraction, confining the placenta at the fundus. The hæmorrhage was continuous and profuse until the hand was introduced, the contraction overcome, and the placenta withdrawn. The flow ceased immediately as the contracting uterus followed upon the retiring placenta. No trouble was experienced in her convalescence. The large loss of blood did not delay the appearance of the milk.

*Hæmorrhage after Expulsion of the Placenta.*—The absence of feebleness of the tonic contraction of the uterus must be regarded as a fundamental condition for the occurrence of this hæmorrhage. I believe this to be true in every instance. I am aware that Dr. Gooch, in his "account of some of the most important diseases peculiar to women," has a chapter on "a peculiar form of hæmorrhage from the uterus," in which he thinks he disproves the universal applicability of the principle, that the absence of tonic contraction is the fundamental cause of hæmorrhage after the expulsion of the placenta. A very careful study of his cases will show the contrary of his view to be the correct one. A very able review of this chapter in Dr. Gooch's work may be found in the *American Journal of Medical Sciences*, Vol. viii., p. 419, from the pen of the late Professor Dewees. Professor Michaelis, of Kiel, has advocated views much like those of Gooch, but the most careful study I have been able to give to the cases of hæmorrhage in my own experience, has impressed my mind with the truth of the assertion, that in all hæmorrhages after expulsion of the placenta, (excluding, of course, cases of polypus, carcinoma, &c.,) the tonic contraction of the uterus is not perfectly or equally exerted.

It will frequently be found that the presence of clots in the uterus interferes with the healthful play of its actions, and that hæmorrhage of a profuse and painful character attends upon this condition. When this obtains, it will almost always be found that there is contraction of the internal orifice of the cervix uteri, offering obstruction to the escape of coagula, and causing them to plug the uterine orifice. This causes a false estimate of the amount of hæmorrhage by the external drain.

The following cases will illustrate the points. It is a subject of great importance, but the limits of a report prevent elaboration.

Mrs. K. was taken in her third labor about 12½ o'clock on the morning of February 19. She had spent the evening with her brother's family, near her residence, and returned home about 11 o'clock. She retired and dozed. At 12½ o'clock she awoke with the pain of labor, and her husband immediately dressed and started for her accoucheur. He had scarcely left the house before the child was born. I, living immediately opposite, was instantly summoned, and, in not more than twenty minutes, was at her bedside. I discovered that the secundines had been delivered immediately after the birth of the child, and that tonic contraction of the uterus had utterly failed. She was almost pulseless, with a surface cold as marble, and able to articulate only in the feeblest whisper. An immense quantity of blood had been lost, and was still issuing freely. Supposing that no clots obstructed the cervix, I at once instituted brisk frictions over the uterus, with occasional graspings of the hand, while an attendant was instructed to prepare and administer a cordial. The uterus commenced promptly to contract, and in a few minutes had effected sufficient compression of the sinuses to stanch the flow. Constant vigilance was exercised over the uterus, to secure a continued contraction. When her accoucheur arrived, the hæmorrhage had been entirely arrested. This lady suffered the ordinary consequences of such great loss of blood, but otherwise convalesced well under the charge of her experienced physician. The child, although it had remained attached to the placenta for some time after the expulsion of that mass, did not appear to suffer from any loss of blood.

Mrs. R. was delivered at 10 o'clock, p. m., after an easy, but not rapid labor. The expulsion of the placenta followed in good time, and the tonic contraction of the uterus depressed the organ to its proper position. All things were promising well. After a short time she was observed to gape and become blanched, complaining of great pain in the uterus, and nausea. The hand upon the abdomen immediately recognized an irregularly contracted uterus; one portion seeming hard, while another was evidently relaxed. Friction upon the abdomen procured hardening of the relaxed portion, and the discharge of some coagula, but the intense pain was not mitigated. The hand was at once introduced into the uterus, and discovered coagula confined in a segment of the organ. These were removed, and immediately the uterus contracted equably, the agonizing pain disappeared, and the hæmorrhage was arrested. Nothing occurred to interrupt a favorable convalescence.

I may be allowed, without multiplying cases, to add, that none who were attacked by flooding died, with the exception of a case of placenta previa, which will be referred to under another head.

6. *Placenta Previa*.—The one thousand cases furnished three examples of placenta previa. An examination of reported statistics shows a great difference in the average number of placental presentations, as will be apparent from the following table:

Name of Reporter.	Residence.	Total number of Cases.	Number of Placenta previa Cases.	Per cent. of Placenta previa Cases.
Dr. Van Bibber*	Baltimore, Maryland.....	1787	7	.39†
Dr. Metcalf †	Mendon, Massachusetts ....	1768	4	.22†
Dr. Bliss ‡	New York.....	820	3	.36†
Dr. Pleasants §	Philadelphia.....	395	2	.50†
Dr. Storer	Boston .....	440	1	.22†
Dr. Pierson ¶	Illinois .....	279	2	.70†
Dr. Kemp .....	Baltimore.....	1000	3	.3

A brief history of the fatal case of placenta previa may not be uninteresting. Mrs. M., in her thirteenth labor, was the subject of this case. I am indebted to her intelligent physician for a history of the case, prior to my being called to his assistance. There had been occasional hæmorrhage for a fortnight before she fell in labor. This was at no time very profuse, but the aggregate loss of blood had enfeebled her considerably. Labor commenced on the 6th of March, and was attended by great hæmorrhage. The ordinary means for suppressing hæmorrhage were instituted, and the vagina very compactly plugged. Her exhaustion became extreme. I saw her, with her physician, on the morning of March 7th. She was greatly depressed. Blood was escaping from the vagina sufficiently to show that the hæmorrhage had not been arrested by the tampon, but had saturated it most thoroughly.

\* Transactions of the Medical and Chirurgical Faculty, 1855.

† Massachusetts Medical Society, seventy-fifth Anniversary.

‡ American Journal of Medical Sciences, N. S., vol. xiv.

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The tampon was removed. Examination detected the placenta in a great degree separated, and lying at the cervix. Hæmorrhage was still persistent. The placenta was entirely detached from the uterus, and withdrawn. The hæmorrhage instantly ceased. The head descended, and was promptly delivered. Tonic contraction of the uterus was well maintained. Appropriate restoratives were employed, and in several hours I took my leave. I had been called only to meet the crisis, and did not see her after my departure. I was subsequently informed that after repeated attempts at rallying, her powers of life gradually succumbed, and she died on the fourth day after her delivery.

The fact that hæmorrhage ceases upon the entire separation of the placenta when uterine atony is not present, is, I presume, no longer a matter of dispute. Since the cases of Simpson, Radford, and others, have been published, and the attention of accoucheurs has been directed to this specific point, many examples have occurred to confirm the accuracy of the fact; and a very important principle of practice grows out of these observations. A case has occurred in our own experience, (to be mentioned under another head,) where the first child and its placenta (in a twin case) were delivered for more than seven hours before the birth of the second. No hæmorrhage occurred after the expulsion of the first placenta. Dr. Metcalf mentions (in his address before the Massachusetts Medical Society) three cases in which "the placenta was thrown off with the last pains before the expulsion of the child; and in neither case did any hæmorrhage follow the birth." A case is recorded in *American Journal*, new series, vol. vi., p. 518, where both placentas in a twin labor were expelled after the first child, and no hæmorrhage ensued, although several hours elapsed before the delivery of the second child. In the same journal, vol. xviii., p. 122, is the history of a case of gastrotomy, in which the placenta was found lying unattached and without any hæmorrhage. In the same journal, vol. xi., p. 243, a case of arm presentation is narrated, in which the doctor, upon his arrival, found the placenta between the mother's thighs, entirely expelled, without subsequent hæmorrhage. The child was delivered by version, and the mother, who is represented as being faint and weak, had a successful recovery. The journals furnish an abundance of cases illustrative of the principle, that, with these two conditions obtaining, viz., a complete separation of the placenta from the uterine wall, and the presence of decided tonic contraction of the uterus, there will be no hæmorrhage. This introduces an important modification into the treatment of some cases of placenta previa, and affords



a means of escape for the mother which was not acted upon before. I regard the discovery of the fact, and the construction of a judicious mode of practice so well calculated to enhance the probabilities of maternal life amid the perils of such cases, as constituting an era in obstetric medicine. I am not to be understood as regarding the separation of the placenta as the rule of proceeding in cases of placenta previa, but I am to be understood as believing that there are cases in which this procedure will save the mother, while the adoption of any other plan will be to forfeit the life of both mother and child.

7. *Liquor Amnii discharged long before Labor.*—Several cases occurred where the membranes broke and occasioned a stillicidium for a longer or shorter time before the invasion of labor. As there was special interest connected with one of these cases, it may be profitable to detail it.

Mrs. G. was taken ill with typhoid fever on May 5th, being then advanced about six months in pregnancy. Her attack proved to be one of very unusual severity, and of protracted duration, evincing those profound vital lesions that invest the disease with its intensity and danger. On the 2nd of June, (the 28th day of her disease,) whilst prostrated extremely by her sickness, I was alarmed by the intelligence that a copious discharge of fluid from the uterus had occurred. It was beyond question indicative of a rupture of the foetal membranes, and escape of the amniotic liquor. There was no indication of uterine pain, although it could scarcely be hoped that miscarriage would be prevented. The water drained off steadily, and in abundance. On the next day, the 3d of June, uterine pain was manifested with considerable severity and regularity, threatening the expulsion of the foetus at no remote period, and thereby diminishing fearfully the hopes of the patient's recovery. This supervention of pain, and the mental anxiety occasioned by the critical circumstances of her case, tended to produce a display of nervous phenomena which aggravated those incident to the fever. The agent relied upon to suppress the uterine throes, and to restrain the high exaltation of the nervous system, was the Acetated Tincture of Opium, given in such varying proportions, with Spts. *Ætheris Nitrici*, as the necessities of the case appeared to require. The anodyne was varied in dose from five to twenty drops, and repeated at such intervals as would not induce absolute narcotism. Fortunately, the lady tolerated the medicine well. The contest, however, was not of short duration. The pain continued both day and night, despite the restraint of the anodyne, but evidently kept in abeyance by it, and it was not until



the seventh day after its incursion that it was finally arrested. During this time the waters continued discharging. Rejoiced at the suspension of pain, I was still grieved to discover that the drain of water continued after the pain had been arrested, because I could not hope that my patient would ultimately escape miscarriage. Two days after the suspension of labor-pains, the water diminished sensibly in quantity, and finally ceased to flow. Hope for the lady brightened. Amendment of her general state soon became apparent, and she convalesced favorably until she recovered her usual degree of health.

She subsequently continued remarkably well, and gained greatly in flesh. She fell in labor on the 17th August, (two months and fifteen days from the rupture of the membranes.) The labor, which was her sixth, progressed most favorably, and she gave birth to a large, fat boy. I had looked forward to this accouchement with much anxiety and interest. Nothing dangerous attended the labor, but it was very remarkable that *there was only a trace of liquor amnii discoverable at any time during the labor.*

8. *Suspension of Labor-pains.*—It is a remarkable fact that sometimes, during the progress of actual labor, the pains will become suspended, and will remain so for a time varying from several hours to many days. Frequent examples have occurred among these 1,000 cases. This arrest of pain is not attributable to mental emotion or to physical exhaustion, since it occurs in labors which are natural in all respects, and in persons whose strength is not at all exhausted. The cause of this character of suspension is as yet, I presume, unascertained.

Mrs. H. fell in labor with her first child on August 19th, 1837, at 8 o'clock, A. M., in charge of Mrs. Hallar, an old and experienced midwife. The labor advanced regularly; by 12 o'clock considerable dilatation of the os uteri had been effected, and the waters protruded the membranes. A sharp expulsive pain ruptured the sac, and a quantity of the fluid escaped. The alternate contractions of the uterus instantly ceased, while the tonic contraction was exerted so decidedly as to maintain an unusual degree of firmness in the uterine walls. In all other respects the lady was well, and suffered in no way from this interruption. The midwife waited patiently from hour to hour for the return of pain, but abstained from any interference, inasmuch as the lady was, in no respect, suffering. At 8 o'clock, P. M., I was called, as some restlessness and fever made their appearance. There was no return of pain. Urine had not been voided for some hours, and the bowels were confined. The lady was able to evacuate

the bladder voluntarily, which afforded her considerable relief. I abstracted about 12 oz. of blood from the arm, and ordered an aperient draught. At 5 o'clock on the next morning (20th) pain returned, and effected the delivery very propitiously at 10 o'clock, A. M.

Mrs. H. in her first labor was taken with pains about 10 o'clock on the evening of Sept. 11, 1841, which continued with regularity and dilating effect upon the os uteri until about 5 o'clock next morning. Now, everything gave promise of a speedy delivery. The os had opened considerably, and permitted the waters to gather. At this time the pain suddenly ceased, unaccompanied by any indications of lesion. I waited patiently until after breakfast for the return of pain, but the uterus remained quiet. The lady suffered in no way that would justify interference, and I left, for the purpose of commencing my daily visitations. Returning repeatedly during the day, I found affairs in *statu quo*. So they continued until about 11½ o'clock in the night of the 13th, at which time pains returned, having been absent for 66½ hours, without any attendant evil. The pains continued active, and effected delivery in about 7½ hours after their recommencement.

Mrs. W., aged 43 years, in her tenth labor, was taken with pain on the night of 13th September, 1843, and summoned me about midnight. Her pains were active, and the soft, dilatable os uteri promising to offer no serious resistance to the passage of the foetus, we congratulated ourselves on the prospect of a happy relapse from the care and anxiety of a protracted watching. But, as Burns says,

“The best laid schemes of mice and men  
Gang aft aglee.”

We were doomed to disappointment, for, while we were expecting the membranes to rupture with every contraction, and had ideally seen the subsequent rotation, extension, and escape of the stranger's head, the uterus suddenly became quiescent. Under the circumstances, I supposed the truce could last but a few minutes. But no pains returned, and after several hours waiting, the fears of the lady and her friends becoming excited, they became clamorous that something should be done. It was apparent, from the lady's comfortable state, that no vital or organic lesion had crippled the uterine powers. I bethought me, too, that now might be illustrated the truth,

“That when nae real ills perplex them,  
They make enow themselves to vex them;  
And ay the less they hae to start them,  
In like proportion, less will hurt them.”

So I said, somewhat abruptly, "Well, if you insist upon my doing something, I have made up my mind to do the best thing that I can for her." "Do, doctor, do," was uttered by several anxious friends in concert. "But what are you going to do, doctor?" inquired the patient. I replied, "Why, madam, I am going home, as there is not the slightest risk to you in your present condition, and there can be no certainty when the pains will return." The matter took a pleasant turn for the present, and the lady, reassured by my communication, became entirely composed. One day passed; two days passed, and yet no pains returned. Friends heard of the singular circumstance, and "came to learn how it was." Wonderful accounts were given to the family of ladies who had gone undelivered for years, and the horror of thus carrying a child was graphically portrayed to the anxious lady. She was sustained, however, by her confidence in the truth of my assurances. But as day after day passed, and afforded no indication of returning labor, the number and the clamor of "friends" increased; divers consultations, (to which I consented, and the lady objected,) and every variety of obstetric operation were pertinaciously urged by the visiting friends. The most saucy of them felt at liberty to suggest, authoritatively, to me, their own thoughts upon my duty, and the dictates of an upright conscience, and imagined that I,

"Maun stan', wi' aspect humble,  
An' hear it a', an' fear, an' tremble."

These folks were dealt with properly; but despite the outside clatter, the uterus remained at rest. I was assured that the child was living, and that "all was right" with the patient. She no longer confined herself to her chamber. Nine days elapsed from the suspension of pain until its return. On the morning of the 22nd of September, at 1 o'clock, I was sent for, and a very easy labor produced a plump, hearty girl, at 3½ o'clock, A. M., being only about two and a half hours from the onset of pain.

9. *Convulsions*.—The one thousand deliveries gave six cases of convulsions, two additional instances of cerebral congestion, which would, but for prompt relief, have resulted in convulsion or apoplexy, and one case terminating in apoplectic coma and death. Of these six cases of convulsion, two occurred before labor, and four during labor. Of the cases of cerebral congestion, one occurred during labor, and one subsequent to it. The apoplexy occurred after labor. Of the convulsions before labor, one was with a sixth pregnancy, and one with a fourth. The four cases occurring during labor were all in first pregnancies.

The cerebral congestion in labor was in a second pregnancy, and the case after confinement was a fourth labor.

All the children were head presentations. Four of the children were delivered by the forceps; the rest by the natural action of the uterus.

Of the mothers, one died; and of the children, one was lost.

Mrs. C. was confined for the sixth time on the 25th of July, 1843. She was of full habit, but accustomed to a considerable amount of exercise. On the 28th of June, nearly a month before labor, she complained of cerebral symptoms, which were relieved by a free venesection and an active cathartic, followed by a carefully restricted regimen. On the 16th of July, (nine days before labor,) she was seized with convulsions of an epileptic character, without the least premonition. She was again bled largely and purged, without an entire removal of the convulsions. The use of tartar-emetic in one-quarter grain doses, administered with a view not to its emetic action, but to its sedative influence over the nervous and sanguiferous systems, exerted a prompt effect in their subdual, and she did well until she fell in labor, on the 25th. During the dilatation of the os uteri, she was seized with a violent convulsion. She was again bled largely, and I was preparing to deliver her with forceps, when the uterus exerted itself powerfully, and I discovered the child ready to emerge from the vulva. The mother had one convulsion after the child was born. She continued subject for seven years to occasional returns of convulsions, when her habit became plethoric or her bowels constipated; but she never had an attack in a subsequent labor. She was treated by V. S. when indicated, and gently but steadily continued purgation and counter-irritation to the spine after each attack. For a number of years she has been entirely free from convulsion.

Mrs. T. was seized, on the morning of June 19, with spasm of the stomach and great dyspnoea, produced by offending ingesta eaten the night before. Her physician not being at home when called, I was sent for, and prescribed. Informed that she was daily expecting to be confined, I was careful in the selection of means for her relief. As soon as an aperient had acted freely upon her bowels, her pain and dyspnoea were greatly relieved. I was called late in the afternoon to see her in connection with her accoucheur, and found her in a strong convulsion. The os uteri was dilating under the influence of steady pain. The patient was bled, and delivered by forceps. The child was living. The mother continued insensible, and never rallied. It was a first labor.

Mrs. V., in her first labor, six days after the case above narrated. During the dilatation of the os uteri she was seized with a violent convulsion of unmistakably hysteric character. Pulse exceedingly rapid. A teaspoonful of Spts. *Ætheris Sulph. Comp.*, and forty drops of laudanum, were administered, and the child delivered with forceps. The child was alive. There was no return of convulsion after the delivery.

Mrs. W's first labor commenced after midnight on the morning of August 26th. The lady was very stout in person, had lived freely, and taken very little exercise. Her bowels were confined. Castor oil was administered immediately after my reaching the case, which operated freely in four hours. As the pain became more active, she complained of headache, which was mitigated by local applications and quiet. There was no unusual activity of circulation. The womb dilated slowly, and she was suddenly seized with insensibility, followed quickly by convulsion. Immediately I bled her to a large amount, and her consciousness returned with the subsidence of the convulsion. Labor progressed slowly. About one and a half hours after the subsidence of the convulsion, a slight twitching of the face was observed, which proved the immediate precursor of another violent convulsion. During its continuance the capillaries of the head were intensely engorged. I bled her again largely, and she again recovered her consciousness. The oil had produced several large evacuations. I put her immediately upon the use of tartar-emetic, in sedative doses. The pains continued steady, but the uterus yielded slowly. The anti-mony appeared effective in subduing excitement, but nervous twitchings again coming on, and the soft parts permitting, I delivered her with forceps about 1 o'clock, p. m. The child was dead. The lady's convalescence was tedious, but ultimately her recovery was complete. Sixteen months after the last labor she was confined again; but having used proper regimen during the pregnancy, her accouchement was, in every respect, most happy.

*Cerebral Congestion.*—Mrs. R., second labor. I was summoned at 2 o'clock, a. m., of Sept. 5th. Pains very regular; os slightly dilated, but firm. Waters undischarged. About 3 o'clock she complained of headache, with intervals of ease; face slightly flushed and warm; pulse but little hurried, and not hard. Evaporating applications were made to forehead. Shortly after 4 o'clock she complained of her head feeling very large, and remarked that my size appeared to be greatly increased. Her head was hot and pulse fuller, with considerable firmness. I immediately bled her, until the sense of enlargement of the head was removed, and my figure resumed its natural

size. After this there was no further threatening, and she was safely delivered at 7 o'clock, A. M.

Mrs. W. was safely delivered in a fourth labor on 25th November. She did well until feverishness attended the early secretion of milk. She complained of her chamber being too dark, and at her bidding, the nurse arranged the window-blinds to admit more light. This answered as only a temporary benefit. Her sight being impaired, she directed a light to be procured. As she made no complaint of indisposition or pain, there was no special anxiety created. A large and handsome painting hung over the mantle, immediately in her full view. Her inability to discern the prominent points in the picture caused another light to be brought, and in a short time a third one was added. I was now sent for. I found her head hot, and eyes projecting; the pulse was very firm, but not full; the cervical vessels distended. She was perfectly rational, and complained of merely a fullness in her head. I directed the nurse to procure a wide basin. I made a large orifice in a vein of the arm, and the blood flowed in a full, rapid stream. I desired her to look at the picture over the mantle, and describe any apparent improvement in vision. After the blood had flowed to the amount of perhaps 10 ounces, she discovered points in the painting which were invisible before. I allowed the blood to flow, regardless of quantity, until she declared herself able to perceive the minute portions of the picture as distinctly as she could do in health. A slight tendency to syncope followed; she was afterwards purged actively. No further embarrassment to her recovery was experienced.

Mrs. H. was delivered at 5 A. M., February 12th, after an easy labor. Her habit was full, and her bowels had been torpid, although they were acted upon before the completion of labor. She did well until at my visit on the evening of the 13th, (about 36 hours after delivery,) when I discovered increased circulation and some headache. She made no special complaint. As a matter of safety, I directed the exhibition of a brisk, active purgative, and instructed the nurse to summon me if any necessity required it. I was called after dawn of day next morning, (14th,) and found her perfectly comatose. I received the following history: The lady declined taking the purgative, and the nurse acquiesced, without informing me of the lady's refusal. Nothing occurred to create apprehension, and at an early hour the family retired. The nurse awoke several times during the night, and remarked the apparently quiet and profound slumber of the lady. About day dawn she found it impossible to arouse the patient,



and then a messenger was dispatched for me. The coma was perfect, and notwithstanding our efforts, the lady remained entirely unconscious, and died early on the next morning.

10. *Puerperal Fever*.—Puerperal fever occurred in six of the patients, but as one of the ladies had puerperal metritis in three successive labors under my care, the whole number of cases would be *eight*. I need not enlarge upon this subject further than to detail a few cases, and comment upon the general plan of treatment.

Mrs. S. was the subject of the three successive attacks of metritis under my care. She was attended in her first labor by one of the most experienced accoucheurs in this city, but suffered a severe attack. Her second, third, and fourth labors occurred under my management, and although past experience induced great care in each successive pregnancy and labor, the disease could not be averted. In the last instance, it occurred on the eighth day after delivery. They all required active antiphlogistic measures, and all the attacks, happily, were subdued.

Mrs. B., delivered in second labor on 14th January, 1842. She suffered with severe abdominal tenderness and pain for three or four weeks before confinement. Bowels were distended, with flatus. After a restless night, she was taken early in the morning of 13th with irregular uterine pain. I saw her at 11 o'clock, A. M.; advised dry, warm applications to abdomen, and a dose of castor oil and laudanum. When it operated, it produced considerable tenesmus, and brought off one foetid evacuation. In the evening pains had increased; examination discovered a head presentation; os uteri a little expanded, but quite soft. Much flatus in bowels. Administered a dose of calcined magnesia, which produced three watery stools, without amendment of pain.

At 12 o'clock at night the pain had made no progress of foetus, and an enema of 60 drops of laudanum was administered. Os uteri a little more patulous.

8 o'clock, A. M.—Patient had some rest after the enema. Pains now are severe in sensation, but have no propelling effect on child. Os uteri quite dilatable. Vagina and perineum well relaxed; mucosity abundant. Head barely engaged in upper strait. A delay of one hour produced no improvement. Feebleness of pain was the evident cause of delay. The patient worn by her pains. Waters discharged. Administered 12 grains of ergot. Its action was apparent in five minutes, and the child was born in fifteen minutes from the adminis-



tration of the ergot. Uterus contracted well, and expelled secundines in forty minutes.

6 o'clock, P. M.—There have been few after-pains. Patient comfortable.

15th, 9 o'clock, A. M.—Complains of pain in uterus, with much flatulency of bowels. Ordered warm fomentations to abdomen.

6, P. M.—Just recovering from a chill. Pain diffused over abdomen, which is greatly distended. Some mental incoherence. Bowels not moved for forty-eight hours. Ordered a full dose of ol. ricini; continued fomentations.

9, P. M.—Oil acted once, and gave considerable relief; bowels less puffed; stool lumpy and fetid; mind wanders occasionally; pulse 110; skin warm, and slightly moist; any motion produces pain; uterine globe very evident in hypogastrium, and sensitive to pressure. Lochia free. Prescribed calomel, camphor, and pulvis antimonialis, to be repeated every three hours. Black drops x, to be given *pro re nata*.

16th, 10, A. M.—One fetid passage this morning. Had short slumbers during the night. Mind in a passively wandering condition. Lochia very moderate; abdominal pain reduced. Pulse 100. Prescribed 25 drops of black drop immediately, and repeat 15 every 1½ hour until sleep is induced.

7, P. M.—Has slept several hours altogether to-day. One nap of about 1½ hour's duration. Bowels distended; mind still unsettled; lochia scanty; pulse 89; skin nearly natural; no stool since morning. Ordered enema. As she has had but one dose (gtt. xxv.) of black drop to-day, the nurse was directed to administer 30 drops after the enema operated.

It is needless to pursue the history further. The free use of black drop (short of narcotism) was continued, with occasional means to allay the intestinal flatus, until the 21st, at which time medicines were suspended, and her convalescence was confirmed.

The fatal case of puerperal fever may be briefly alluded to.

Mrs. P. was confined June 4, 1840, with her ninth child. Was under the care of a midwife. The patient had been very costive, and the midwife allowed the labor to go on with an impacted rectum. She suffered from flatulent pain and unusually rigid soft parts. When I saw her, I directed the bowels to be emptied by means of enema, and a dose of castor oil to be administered. After the clearing of the bowels, the labor was still delayed by unyielding soft parts; she was bled ʒxxvj. Relaxation presently followed, and the child was safely born. I was not requested to see her again until some seventy-two hours after labor,

when I found a well-developed case of puerperal peritonitis. The midwife had allowed her animal broths for nourishment, and directed her efforts mainly "to keep her strength up." The abdomen was now greatly distended, and exquisitely tender, with watery dejections from bowels. Pulse 120. On the 9th she vomited greatly, throwing up matter resembling finely-powdered charcoal. The case was badly nursed; her medicine was given with great irregularity, and she died on the 10th.

One case of puerperal fever occurred after a labor with twins, and, but for its being an isolated one, might be worth detailing. The point of interest is, that I had just returned from visiting a case of malignant erysipelas, when I was summoned to the labor. I had been called in consultation to visit a young lady nine miles from the city, ill with malignant erysipelas, and on my return to the city encountered a violent rain-storm, which completely soaked my gloves and thoroughly washed my hands. This, in addition to the washing given them before starting, would be presumed to have removed every infection of erysipelas. Upon reaching home, I found the message to the case of labor. This lady had a violent attack of the fever. After its appearance, I was careful to avoid contact with any of the secretions, and although five patients were confined quite shortly after this one, no other case of the fever occurred.

In regard to the treatment of the fever I may remark, that no one of the cases was bled after the appearance of the fever. They were purged early with calomel, and treated with liberal doses of opium, varied in form to meet any peculiarity of idiosyncrasy, and all, except the neglected case, recovered. The same general idea of treatment has been found equally beneficial in cases which I have seen in consultation.

11. *Engorgement of Cervix occurring during Labor.*—Mrs. H. was in her second labor on July 12th, 1837. The labor progressed slowly, both from inefficient pain and from an unusual indisposition in the os uteri to yield. The rigidity was not remarkable, but it remained at a certain degree of dilatation for several hours. The cervix was discovered finally to be hardening, and this condition increased to a degree of great engorgement and firmness, which effectually resisted any dilatation. A large venesection overcame the engorgement, and labor advanced to a successful termination for both mother and child.

12. *Impacted Rectum.*—It would seem almost impossible that an impacted rectum could obscure the character of a labor and create a doubt in the mind of an experienced obstetrician. Nevertheless, on

the 26th of January, 1839, I was called in assistance to a very judicious and experienced practitioner, whose diagnosis was exceedingly embarrassed by what proved to be the superior portion of the rectum impacted with fæces. It presented the appearance of an arm of a twin descending with the head of the advancing child, and, at the then stage of labor, was well calculated to deceive. The patient having insisted (which was untrue) that her bowels had been moved several times freely, in the beginning of labor, gave still more occasion for deception. A very careful examination gave a solution finally, and the cause of difficulty was removed by aperients, after which, the progress of the labor was rapid.

13. *Birth in Articulo Mortis of Mother.*—Mrs. M. in her third labor, child born on 4th of December, 1840. In the preceding October, I was called to attend her in an attack of dyspnœa, induced, without doubt, by long-continued torpor of the bowels. It was, however, relieved in four or five days by a persistence in aperients. She had suffered greatly from constipation during the entire pregnancy. In this attack, her pulse was very small, frequent and quick, and her expression of face indicated great organic suffering. Her relief was complete, and I saw no more of her until the 30th of November, when I was again called. At this time, I found her with indomitable vomiting, which commenced two days before. Her bowels had not been evacuated for a week, and the case presented unmistakable symptoms of volvulus. No appearance of any hernia could be detected. Pulse very small, and so rapid as not to be counted; fingers livid; respiration not greatly disturbed. On the 1st of December, a shriveling or wilting of the skin, as in the collapse of cholera, came on, without abundant sweating. On the evening of 4th December, she was dying. My mind was exercised about her child. Should it be removed by the Cesarean section immediately upon the death of the mother? I sat by her, anxiously watching. Laying my hand upon the abdomen, I discovered that the uterus was in action, and a vaginal examination detected the child progressing towards delivery. The action of the uterus was but little remitting, and the child was slowly but steadily advanced until it emerged from the vulva. The mother was in articulo, and survived but a short time. The child was dead.

14. *Frequent Special Presentations.*—Mrs. L. has had six labors; three were breech presentations.

Mrs. N. has had three labors; two were breech.

Mrs. B. has had four labors; two were breech.

15. *Frequent Twin Labors.*—Mrs. P. has had twins three times.

Mrs. K. has had twins three times.

Mrs. H. has had four labors; the third and fourth were twins.

16. *Mortality to Mothers.*—The total mortality to mothers in the one thousand cases was as follows:

One from placenta previa.

One from apoplexy, occurring about forty hours after delivery.

One from puerperal fever.

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*Abscess of the Abdomen—Gangrene of the Integument—Ascites; Spontaneous Evacuation of the Effusion through the Abdominal Walls—Peritoneal Fistula.* By JOHN O. BRONSON, M.D., Lecturer on Surgery in the N. Y. Preparatory School of Medicine.

On Wednesday evening, September 17th, 1856, I was called to see Margaret B——, æt. 44, the mother of several children, and eight years a widow. She was a small, delicate woman, of nervous temperament and weak mental ability. Lying upon her bed, in a state bordering on delirium, with a countenance expressive of great anxiety, and apparently in severe pain, she presented the appearance of a woman in the parturient condition, suffering from some complication, inasmuch as her abdomen was eminently enlarged.

Upon making a proper examination, I found her abdominal enlargement was owing to ascites, and an abscess. Her bowels had not been evacuated for upward of two weeks; but as she did not at any time enjoy this necessity of nature oftener than once in a week or ten days, this should not be considered extreme, especially as she afterwards assured me she had allowed three weeks and even a month to elapse between her evacuations, without experiencing any discomfort. Nevertheless, to unload her bowels was an evident indication in the treatment to be pursued—an indication which received early attention in the administration of an enema of a solution of soap and salt, with molasses, to be repeated until the bowels were thoroughly emptied.

Upon making an examination of the abscess, I found it to be subcutaneous, about the size of the foetal head at term, very prominent, and exhibiting on its anterior superior face seven superficial square inches of the integument in a state of gangrene.

The situation of this abscess was just below the umbilic, and a little to the left of the median line, the circumscribed induration being irregular, reaching entirely to the left ilium, and falling short of the right by more than two inches. This abscess appeared about

three weeks previous, and had been increasing gradually, giving no uneasiness, and exciting no apprehension up to the time of her summons to me, thinking, as she did, that it would take the course of a similar one which appeared about ten years before, in the same situation, matured, and was evacuated spontaneously. Through the centre of the gangrenous portion, which presented the most favorable point for evacuation, I passed a trocar, to ascertain the character of the contents. Through the canula flowed a greenish-yellow fluid, which seemed to be broken-down pus, containing many flocculi, and of very fœtid odor. Nearly two pints of this fluid were collected, being evacuated by incision. The formerly prominent anterior wall of the abscess collapsed, and resting upon the muscles beneath, presented a concavity equal to the previous convexity. The patient's pulse, which, when first noticed, numbered 130 per minute, immediately fell to 123, at which point it continued until the injection produced its effect, when it received a second diminution, and counted but 118, and had much improved in character, being less weak and less irritable.

Having prescribed for external use a lotion of the chloride of soda and a stimulating poultice composed of pulv. cinchonæ, two parts; pulv. zinziberis, pulv. rad. althææ, each one part, and, for internal administration, wine whey and a pill containing two grains of the sulphate of quinine, and a tenth of a grain of the sulphate of morphine, to be given every two hours, I left, to return on the following day.

On Thursday, the 18th, eighteen hours from the first visit, the patient had slept a few hours, and was much more quiet. The pulse had fallen to 112. The gangrene was evidently extending. I ordered a continuance of the previous prescriptions, with additional wine.

On Friday, the 19th, the patient's condition was much the same, with a slight diminution in the frequency of the pulse, it being 108. The gangrenous action had encroached upon the sound tissues more than one-eighth of an inch in its whole circumference, thus adding about two inches to the already extensive destroyed surface.

The previous prescriptions were ordered to be continued, adding tincture of camphor to the poultice, and milk punch to be substituted for the wine whey.

On Saturday, the 20th, I found a great improvement in the patient. Her pulse was but 97. The gangrene was stayed, and at points suppuration had commenced. A continuance of the treatment was ordered.

On Sunday, the 21st, I was gratified to find the slough nearly separated, and a healthy action well established.

The pulse had diminished in frequency, and gained materially in strength. It numbered but 84 per minute.

On Monday, the 22d, the slough entirely separated, leaving a healthy granulating surface of more than nine superficial square inches in extent.

For two days the patient continued to improve in every respect, and the healing action progressed rapidly under the use of a very dilute lotion of the chloride of soda; the poultices having been discontinued shortly after the separation of the slough.

On the 24th, the interval between the administration of the pills was lengthened to four hours. No change was made in other respects.

On Friday, the 26th, the patient's pulse had come down to 78, and improved in strength and character.

No stools having passed, except by the use of enemata, since my first visit, I turned my attention to the condition of the bowels, and endeavored to ascertain the cause of the ascites. After diligent investigation, I concluded that a torpidity of the portal circulation was at the root of the matter, and consequently prescribed the following:

R.—Podophyllin, gr. vi.  
Pulv. capsici.  
Ext. nucis vom., aa. gr. iii.  
M.—div. in pil. vi.;

of which one was to be taken every night, or every other night, according to requirement.

On the 27th, ten days from my first visit, while dressing the ulcer, I noticed a gangrenous point, about one inch and a quarter below the umbilic, the size of a small pea. It was not superficial only, but deep, and I was at a loss to understand it. I increased the strength of the lotion, however, and hoped for the best.

On the following day the same condition existed, and although this local manifestation portended evil, the general symptoms were flattering. The patient continued to improve. The prescription of the 26th produced most satisfactory results.

On the 29th, I was greatly surprised to find that the slough had separated, leaving a communication into the peritoneal cavity, through which had escaped the ascitic fluid, bathing the patient from the mamæ to the pubis, and wetting the bedding above, around and beneath her. It was impossible to estimate the quantity of fluid, except from pre-existing appearance; judging in this wise, there must have been at least six quarts.



The fistula thus formed remained patulous, and the effusion continued to flow, passing away as rapidly as transuded.

The healing of the ulcer was not checked, however, and a cutaneous covering rapidly formed until it reached the fistula, a closure of which was not easy, if desirable. Various attempts were made, however, by means of astringents, stimulants, and compresses, but all to no purpose.

The effusion continued, though in diminished quantity, and by an occasional use of the podophyllin pills the action of the bowels was made regular.

Three weeks from her summons to me she was up and attending to her household duties, having in that short space of time recovered her strength and attained to such a degree of health as she had not enjoyed for a long period.

For four or five months the patient was under my observation, and though making use of various remedies to counteract the transudation, it still continued. Diuretics, cathartics, and deobstruents, individually and combined, served but temporarily to check the effusion. There seemed to be no relief from this irksome malady. The poor woman was obliged to wear some absorbing material continually.

The question of closing this peritoneal fistula was often presented and often met in the negative, inasmuch as it did not seem proper to dam up the stream while the fountain continued to flow.

For a period of more than a year the patient was seen from time to time, and the effusion continued unabated. Her general health improved, however, and became better, indeed, than it had been for several years.

The case was seen respectively by Prof. Henry G. Cox, Dr. W. F. Holcomb, Dr. C. A. Budd, and Prof. E. R. Peaslee, all of whom expressed themselves as to its being unique. One circumstance connected with the case marked it as peculiar. It was this. By certain movements, air was received into and expelled from the peritoneal cavity, producing at no time and in no way any unpleasant results. This peculiarity I think noteworthy, suggesting as it does certain practical ideas.

We have been taught and indoctrinated with the idea that the entrance of air into the serous cavities is an event to be always guarded against, as productive of most dreaded results.

Influenced and intimidated by this idea, many surgeons have shrunk from operations which, to say the worst for them, could only have been unsuccessful, while to abstain was sure death. With the disease



there was no hope of life. By the operation hope would have been rekindled, and death, for a period at least, set at defiance.

However injurious it may be to expose unaffected serous membranes to atmospheric influence, I am satisfied from observation, that it is far from hazardous to thus expose a diseased surface.

Indeed, I am of the opinion that it is necessary, in the proper treatment of some of the forms of disease affecting the serous cavities, to unhesitatingly lay them open. I refer now to some of the diseases affecting the articulations.

In inflammations of the joints we may have effusion or exudation, or both combined, giving rise to serous, purulent, or sero-purulent collections in the cavities. These fluids collecting in large quantities, materially aggravate the symptoms—give rise to excessive pain—and by distention of the tissues greatly interfere with the process of absorption by which we hope to remove it.

Were such proportionate quantities of fluid contained in any other cavity of the body, means would be speedily resorted to for its removal.

But according to the doctrines which we have been taught, unless the fluid be clearly pus, and pus only, it must not be interfered with. Nature must perform the task of removing it, and lest she be too slow or ineffectual, stimulants and alteratives are resorted to, with the vain hope of producing absorption—vain, I say, because in such a large number of cases it is useless to make such efforts. The poor patient sinks into a hectic condition, and to save the remnant of his life the diseased member is taken away; and maimed, he lives a witness to the imperfection of the science of medicine, and walks forth in every step declaring the perfection of the art of mechanism.

In many forms of ovarian disease the same vain, hopeful course is pursued.

The surgeon fosters the idea that alteratives and counter-irritants will produce most marvelous results, and though seeing no change, pertinaciously adheres to their use.

Failure ensues, and the dispirited patients seek advice from another, who, equally with his brother surgeon, shares in this fear of the bugbear clothed in serous membranes, recommends a similar course, and day after day passes away until the tumor, instead of being frightened at the iodine and its compounds, has gained in size, and formed such attachments that all hope of removing it is lost.

I would not be understood as counseling an indiscriminate slashing of serous membranes, but an intermediate course between that timid,

unsettled action which allows the afflicted to pass away, and that bold, unscrupulous course which drives the patient out from earth.

The peculiarities presented by the foregoing case induced me to make it known and to append the above remarks, believing, as I do, that sooner or later the ideas will meet with demonstration by those who are unwilling longer to tread the beaten paths of routineism, and determined to advance the science of medicine to that perfection which is demanded of an enlightened profession.

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*A Case of Placental Adhesion and Hour-glass Contraction.* By JOSEPH MARTIN, M.D.

In the month of May, 1858, I read before the "New York Academy of Medicine" a paper on "Placental Adhesion as a Cause of Hour-glass Contractions and protracted Labors." In that paper I have endeavored to prove that hour-glass, and other irregular contractions of the uterus, found after the birth of a child, always occur during labor, and are caused by placental adhesion; that such abnormal contractions uniformly cause delay, and can be diagnosed before delivery; and that a knowledge of such deviations from the physiological process of parturition is important in determining the treatment during and after labor, in many cases of midwifery.

As illustrations of the views I have adopted, I, in that paper, related several cases; among the rest, that of a complete hour-glass contraction, the details of which show the true relation between adhesions of the placenta and irregular contractions of the uterus. I have recently attended the same lady, and a brief history of the case will prove the practical importance of a thorough knowledge of the pathology and symptoms of such abnormal adhesions and contractions.

On the 16th of May, 1859, I was called to attend Mrs. G., of Brooklyn, in childbed. The labor commenced at 11 A. M. The os was well open, and relaxed; the pains regular, but without force. At 10 P. M. the membranes were ruptured. For the next seven hours the head, which presented with the occiput at the left anterior iliac position, advanced but little; the vertex having not yet reached the hollow of the sacrum. The uterus lay far over to the right side, and was oval in form. The placental soufflet indicated a postero-fundal attachment. It could be heard only at the middle and posterior part of the fundus, and at the left side. It should be here remarked, that

in the paper read before the Academy, I have shown, that when the placenta is firmly adherent to the walls of the uterus, the muscular fibres at the place of attachment cannot contract so as to lessen the size of the sinuses, and the placental soufflet, therefore, does not, as in physiological labors, diminish during parturition in harshness and loudness. I, consequently, consider an unaltered *bruit de soufflet* a diagnostic sign of placental adhesion. It will, however, be observed that, in this case, the position of the placenta afforded no opportunity to determine by auscultation whether it was adherent or not. The foetal pulsation was distinct.

As the child's head, from 5 to 6 A. M., ceased to advance, the pains being very severe and irregular, I sent for Dr. Schapps, of Brooklyn. After hearing from me the history of her last confinement, and of this case, he examined her, and found that the child's head was not advancing; that the placental soufflet could be heard at the points indicated above, and that the child was alive. But he noticed the position and form of the uterine tumor, and also, that a mass of the intestine had to be pushed aside while he was auscultating for the foetal pulsation. In reply to a question of his, I stated that, in this case, there were then no *reliable* signs of placental adhesion.

Having come to the conclusion that there must be some complication with the umbilical cord, and that the arrest of the head of the child was caused by an unusual mental excitement of the patient, we decided to defer operating until the afternoon.

For two hours after Dr. S. left, there was still no advance of the head, although the pains were still very severe. On *then* examining the uterine tumor, I found that the mass of intestine that had obstructed the auscultation of the foetal heart on the left side, had passed over the anterior part of the body of the organ, forming a well-marked band, a few inches in width, which was shown to be intestine by its softness and elasticity on pressure, and the gurgling sound which was detected on auscultation; while the fundus, which had receded still further from the pubis, could be distinctly felt; and *now* the head of the child, after having been stationary for three hours, began to descend into the hollow of the sacrum at every pain. This band of intestine I at once concluded—and there could be no other conclusion—was lodged in a sulcus or depression which encircled the uterus. The diagnosis was now plain; for the existence of this sulcus, together with the further elongation of the organ, and the advance of the foetal head, solved the mystery as to the cause of the acute, irregular and

inefficient pains. It was evidently a case of hour-glass contraction, with very great probability of placental adhesion.

As the occiput approached the arch of the pubis, it ceased to advance, and a *quick recession immediately followed* each pain, which, according to my observation, indicates the elastic reaction of a distended cord; and I then concluded that it was entwined about the child's neck, an opinion that was confirmed at its birth.

As the only mode of giving relief to the mother, I then passed one blade of the forceps over the occiput, and gently aided each pain. The head passed under the arch of the pubis at 11 A. M., 24 hours after the commencement of labor; and, although every precaution was taken to obviate the effects of the entwined cord, the appearance of the child showed that it had been asphyxiated for some minutes.

The hand was at once introduced into the uterus. The inferior half of the organ was moulded, by its firmly-contracted muscular fibres, into the shape of an inverted bowl, with the bottom removed, the os representing the mouth of the bowl. There was not, however, a perfect hour-glass contraction, for the hand passed freely through an opening leading to the fundal half of the uterus. The anterior and lateral parts of this opening presented a smooth, hard, semicircular edge, formed by the contracted circular fibres at that point, while from the posterior part a portion of the placenta was hanging loosely down into the lower chamber. The superior chamber contained much the larger part of the placenta, which was adherent to the posterior wall, and the part of the fundus near it. The mass was detached without difficulty, except at the centre of the fundus, where it adhered so firmly that I was compelled to leave small portions clinging to the surface. As no efforts would then excite uterine contraction, the placenta was removed, and the hand again introduced.

The whole upper part of the uterus was perfectly relaxed. Its posterior portion had fallen back, like a wet sack, and was filled with coagulum and fragments of the placenta, which I removed, after a fruitless effort to excite contraction. She was now vomiting, and nearly sinking from loss of blood. Brandy was freely and promptly administered, and the hand introduced the third time.

The bowl-shaped inferior half of the uterus remained unchanged since the first introduction of the hand. Not a muscular fibre that had, by its contraction, aided the mother in her last efforts to expel the child, had relaxed. But by a firm and careful manipulation externally and internally with both hands, the muscular fibres at the fundus at last contracted, the rigid semicircular constriction disappeared, and the

uterus assumed the size, form, and position that are usual after physiological labors. She had a good and speedy recovery.

This case proves:

1st. That placental adhesion is the cause of hour-glass contractions of the uterus.

2d. That such contractions take place during labor; and are the results of an abnormal action of the free uterine muscular fibres, excited by the efforts of nature to supply the place of those parts of the organ which are rendered inert or inefficient by the adhesion.

3d. That all such labors must be more or less protracted.

4th. That hour-glass contractions can be diagnosed during labor.

It may also be inferred, from what is related above, that in similar cases, and under favorable circumstances, the forceps or vectis may be resorted to with safety to the child, and great relief to the mother.

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*On Microscopical Diagnosis.* By ADOLPH VON DUEBEN, M.D. Translated, with annotations, by Prof. LOUIS BAUER, M.D., M.R.C.S., Eng., &c.

The great progress of medicine in the present century is pre-eminently the work of microscopical research. Our knowledge of the elementary structure of organism is exclusively based on the microscope, and modern physiology is its obvious result. The latter, again, furnishes the essential premises to pathology.

That organic chemistry has materially participated in this advancement, cannot be denied, however imperfect its contribution may hitherto have been. But the microscope has in practical usefulness obviously excelled the chemical reagents, both in precision and facility.

The exaggerated hopes placed in the infallibility of the microscope have certainly not been realized, for its application has its optical limits, beyond which its scientific and practical utility cannot be extended. To place implicit reliance upon the microscope, to the exclusion of other channels of observation, would lead to as much error and disappointment, as would its total neglect.

Whatever may be the present imperfection of microscopy, and the errors propagated by this method of medical investigation, its usefulness has been fairly demonstrated, and its practical results are such as to invite to perseverance.

Every method must naturally be deficient in its beginning, and will become gradually perfected by constant practice. The microscope,

however, as well as the method, has already attained an influence upon the development of natural science far beyond original anticipation, although its use is of but comparatively recent date.

In both histology and physiology, the microscope has firmly established its superiority. Through the medium of these fundamental branches it has benefited medical science at large. And of late it has begun to lend its material aid to diagnosis. Possessed with accurate knowledge of the anatomical elements in health and disease, the microscope will frequently assist us in disclosing obscure and otherwise imperceptible morbid changes. Sometimes it may delude and give rise to erroneous inferences, although the observer and the instrument used may be more at fault than the method. Yet more frequently it will reveal the true state of elementary structure, and its deviation from normality, and thus aid and correct our pathological knowledge.

The object of this compendium is a brief compilation of all microscopical *facts* appertaining to medical diagnosis, to the exclusion of all that is doubtful or hypothetical. And for such a compendium there is yet room in medical literature, notwithstanding the works of Hoesle, Beale, and others, which are either superseded by new discoveries, defective in their illustrations, or too voluminous.

Minute technicalities and detailed chemical analyses have been excluded, as not strictly belonging to the subject, although the author is fully sensible of their general importance, for satisfactory and correct conclusions can only be drawn from the controlling combination of all recognized methods of investigation.

The following general rules for microscopical examination may be found useful:

1. The *various* parts of objects, presenting marked differences even to the naked eye, should be carefully examined.
2. Each examination should commence with as low a power as the object will permit, and the latter should be retained in as natural a position as practicable. The power should then be gradually increased, and even the highest should be tested, if the size of the object will admit of it.
3. Different specimens of the same morbid material should be successively placed under the microscope, until conclusive results have been obtained.
4. The objects for examination should be fresh, and be observed in different conditions, so as to determine what is normal, morbid, or accidental. For the same reason false light and focus may be used,



in order to discern optical delusions. The greatest cleanliness is indispensable. The object-slides and lids are best cleaned with soft linen and chamois, and should be first examined for dust and fibres before being used.

5. The objects should be neither too large nor too thick.

6. The best light for microscopical examinations is derived from illuminated clouds or a clear northern sky. Argand lamps and sunlight may also be employed, when mollified by a plate of ground glass.

7. At the first examination of wet specimens the same fluid should be used by which they are naturally surrounded or endowed.

8. The following reagents should be always kept in readiness for use: distilled water, concentrated and diluted acetic, sulphuric, and nitric acids, and caustic potassa, sulphuric ether, and oil of turpentine. For ordinary purposes these will suffice.

9. It is to be recommended to the observer that he make drawings of all objects; note down their size, character, position, the magnifying power employed, &c. In doing so, all the details will be better understood and remembered.

#### I.—THE SKIN.

The results of microscopical examination in general upon the structure of the skin, the classification and diagnosis of cutaneous diseases, as well as its importance upon therapeutics, belong to Dermato-pathology, and are therefore not subjects for our consideration. This essay has to deal with microscopical diagnosis only. In this respect the microscope is invaluable, for the perception of certain parasites, vegetable and animal, infesting the integuments, and causing certain forms of cutaneous affections.

##### 1.—EPIPHYTES.

A great variety of vegetable parasites of the lowest species has been observed upon the integuments, but comparatively few only are of pathological importance. Most of them seem to have been deposited by mere accident. Thus, for instance, *Trichophyton sporuloides* of Robin, observed in the secretion connected with *plica polonica*. Beschorner's very careful investigations into the nature of this endemic disease have removed all suspicion as to its communicability, either by the said alga or the presumed morbid secretion. The *Trichophyton ulcerrans*, found in an atonic carious ulcer by Lebert, and the otherwise most remarkable *aspergillus* species, discovered in the aural cerumen by Mayer and Pacini, seem to be of no greater importance. In fine, the *Puccinia favi* may be mentioned as occurring upon the



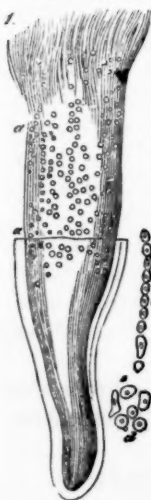
epidermal scales, in favus ardsten. Yet all these parasites present no other practical interest than their accidental and harmless existence upon the skin. Very different is it with those described hereafter, acting, as they do, as direct causes of cutaneous diseases, entering the follicles, folds, or wrinkles of the skin itself, irritating the latter, destroying the hair-bulbs, and eventually the hair itself, unless counteracted in an effectual manner.

(a.) *Trichophyton Tonsurans.* (Malmsten.)

This parasite belongs to the class of fungi, (Robin,) and its term is derived from *thrix*, hair, and *phyton*, plant, (Malmsten.) The adjective, tonsurans, is figuratively chosen, on account of the specific peculiarity of the parasite in destroying the hair in the centre of the scalp, like the tonsure of monks. The disease caused by this tribe of Trichophytens is named by Cazenave, Herpes tonsurans; by Malmsten, Rahizophyton Alopecia; by Mahon, Teigne tondante.

Both Boeck and Hebra are of the opinion, that Puccinia favi and Trichophyton tonsurans are, pathologically speaking, the same parasites, and that the effects of either differ only in degree, but not essentially.

The scalp, affected with this disease, exhibits *one or more round, dry,*



*gray, and slightly elevated maculae*, that seem to be thinly covered with fine dust. These spots are either bare, or occupied by a few, mostly split-hair stumps, and generally encircled by young hair and a moist brown-yellowish ring. A magnifying-glass will show a considerable number of hair stumps, broken off above the skin, their ends divided like a brush. If a portion of the gray dust is scraped off, and with some hair stumps, is put under the microscope, it will be noticed that the former consists of epithelial scales and fragments, besides innumerable spores of Trichophyton. In the interior of the hair-bulbs crowds of irregularly grouped spores (fig. 1, *aa*) will be observed, which, however, occasionally join each other like strings of beads, (fig. 1, *b*.) Their pressure upon the bulbs is so great as to atrophy and to destroy them.

Where the sheath of the hair, and consequently its resistance, terminates, the parasite bursts the hair cylinder, and spreads luxuriantly over the surface. The hair is thus broken off, and

a fibrillated stump left, which in its turn is destroyed by direct pressure inside of the bulb.

*Trichophyton tonsurans* consists of exquisitely minute spores, of 0.003, 0.008, 0.0010 mm. diameter, each endowed with either nucleus or macula; some being constricted and branched, others putting forth regular buds. The spores located within the hair-bulbs are flattened, evidently from their mutual pressure and the restraint of the fibrous sheath. Being, however, relieved from local restraint, and subject to the action of distilled water, they readily distend to a globular form.

The sebaceous material of the follicles should first be dissolved by oil of turpentine, and a power of from 400 to 800 should be used for their examination.

(b.) *Microsporon Audouini*. (Gruby.)

A fungoid growth of the same class and tribe as the former, but of distinct botanical species. The disease caused by this vegetable parasite bears great resemblance to herpes tonsurans, both as to its seat upon the scalp, as well as to its symptoms; it differs, however, widely from the latter, in its rapid development and destruction of hair. Cases are related in which the disease, in the short space of from 3 to 4 days, had produced bare spots of 3 to 4 centimetres in diameter. It is therefore considered a distinct morbid species, and severally termed *Phytoalopecia*, (Gruby;) *Vitiligo*, (Cazenave;) *Porrigio decalvans*, (Bateman.)

According to Robin, the spores of *Microsporon Audouini* are round, 0.001—0.005—or oval, and 0.002—0.008 mm. in size; consequently smaller than those of *Trichophyton*. They swell considerably in water. Moreover, the fungus exhibits numerous undulated and branched fibrillæ, forming anastomoses and a complete net-work, within which the spores are placed. This net-work has its seat upon the hair, surrounds their stems about 2 mm. from the epidermis, fastens itself about the hair, and breaks it transversely off. Gruby thinks that on the average about 8 days suffice to break an ordinary hair; thicker ones resist longer.

The microscopic examination of this parasite, the power to be used and the rules to be observed, are the same as with the *Trichophyton*.

(c.) *Microsporon Mentagrophytes*. (Ch. Robin.)

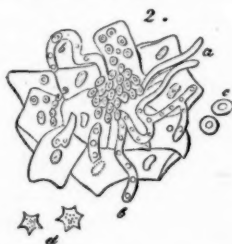
This parasite possesses almost the same botanical character as *Micr. Audouini*, exceeding it, however, in the size of its spores, filaments, and reticulated anastomoses. The *Micr. Mentag.* originates in the

hair follicles, outside of the hair-bulbs, and is distinguished thereby from *Micr. Aud.*, which encircles the hair above the epidermis, and from *Trich. Tons.*, which grows within the hair-bulbs.

Hitherto this fungus has been found in *Mentagra* (*sycosis mentis*) only, and Gruby ascribes the contagiousness of this disease exclusively to the parasite. Kuchenmeister is inclined to believe that the *Mentagram* of Martial, and the *Pudendagram* of Pliny, so frequent among the ancient Romans, originated with *Microsperon Mentag.* These cutaneous diseases had their seat between the chin and genital organs, and consisted in nodules and tubercles, and were of decidedly contagious character.

(d.) *Microsperon Furfur.* (Ch. Robin.)

This constitutes both the infectious and coloring medium of *Pityriasis versicolor*, and has its seat *between* the epidermal scales. In carefully scraping the so-called liver spots, and subjecting the substance thus obtained to a power of 400, it will be readily noticed, that it is made



up of wrinkled and folded epithelial layers, with interstitial groups of spores, and a delicate net-work of fibrillæ, (fig. 2, a, b.)

A more distinct view, however, may be obtained by adding a drop of solutio-potassæ causticæ, which renders the epithelium transparent, without injuring the parasite. The latter then exhibits numerous delicate fibrillæ of 0.001—0.002 mm. diam-

eter, branching and anastomosing with each other. Some are quite hollow, (fig. 2, a, mycelium;) others contain nuclei and spores, (fig. 2, b, receptacula;) and others, again, show cell-articulations of 0.006 mm. Between the reticulated meshes the spores are imbedded. The latter are perfectly round, refract the light strongly, contain a delicate nucleus, measure from 0.001 to 0.002 mm., and show two contours with a false focus.

A patient, afflicted with *pityriasis versicolor* for four successive years, exhibited small multangular bodies, (fig. 2, d,) in great number; of *puccinia favi*, however, but one specimen.

(e.) *Achorium Schœnleinii.* (Remak.)

This fungus belongs to the class of *Arthrospores*, *Tribus Oidiei*, and forms, according to Link, a species of its own.

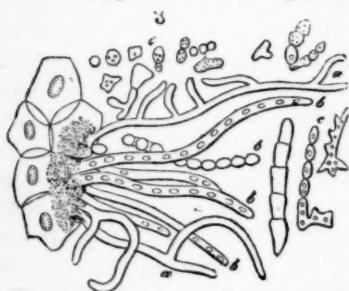
Bassia first directed the attention of the renowned Schœnlein, then Professor in Zurich, to the muscardine of the silk-worm, which

proved on careful examination to be caused by an achorion fungus. The analogy led Schönlein to extend his researches to porrigo favosa, suspecting the same achorion to be the cause of that most abject cutaneous disease; and after a long search, with an imperfect instrument, Schönlein finally succeeded in discovering the parasite, (1839.) Since then, and encouraged by Johannes Müller, the achorion has been repeatedly the subject of careful investigation, the results of which have been every way corroborative of Schönlein's statement, in honor of whom the epiphyte has been named after its first observer.

The seat of Achorion Schönleinii is chiefly on the scalp, but in solitary instances it is found on other parts of the body, such as the finger-nails. (Meissner.) Its transmissibility has been positively demonstrated by inoculation, (Remak, Bennet,) even upon an apple. (Remak.) And Bennet has also observed it upon rats.

The most correct description of this achorion species has been given by Robin, to which the author can add nothing but confirmation.

According to Wedl, this parasite originated in two ways. The



ordinary growth is from the epidermis. Upon the delicate epidermal-scales a very thin, mostly transparent, layer of exceedingly fine and amorphous molecules are met with, which is the real matrix or stroma of the fungus. From this layer the Mycelium (fig. 3, a) puts forth its equally wide, unarticulated, curved and hollow

fibrillæ of 0.003 mm. diameter. Often, the cylindrical cavity extends into the branches of the Mycelium, but occasionally their cavity is found to be separated from that of the primitive stems. Another, but very analogous part of the fungus, are the receptacles, (fig. 3, b,) fibrillæ of different sizes, less curved, and unbranched.

The smaller Mycelium-fibrillæ have only towards their free ends one or two incipient spores, whilst the larger fibrillæ are filled with more developed ones, imperfectly separated from each other by contraction of the fibrillæ. Their size varies from 0.005—0.007 mm. The third degree of development, or 3d part of the achorion, are the spores themselves, (fig. 3, c,) either spherical in shape by 0.003 to 0.007 mm. in size, or oval by 0.001 mm. in length. Quadrangular forms with

subdivisions may also be noticed; moreover, they contain occasionally numerous exceedingly small granules, with molecular motion. In the

4.



larger and spherical spores there is one nucleus, and in the oval ones there is generally one to be noticed on either extremity. The examination should be made as previously suggested, and with a power of 400 to 600; although the larger fungi may admit a much lower power than that, and have actually been seen by a power of 150.

The exceptional growth is in the shape of isolated or connected spores in the hair follicles, gradually encircling and finally perforating the hair-bulbs. (Fig. 4.)

As has been already stated, achorion Schœnleini is now admitted to be the ostensible cause of *Porrigio favosa*, the medium of its transmission. Relief from this disease demands the total eradication of the parasite.

## 2. ERIZOES.

The same remarks, appertaining to the various epiphytes observed upon the human body, are applicable to animal parasites. Among the latter, there are specimens which have not the least pathological importance, being either accidentally deposited or attracted by uncleanliness. *Pulex irritans*, *phthirius inguinalis*, Leach., (*pediculus pubis*, Lin.,) *pediculus capitis* and *vestimenti*, belong in this category.

Older medical writers have variously alluded to and described a disease under the name of *phthiriasis*, alleged to be caused by the presence of a peculiar species of *pediculus*, (*tebescentium*;) and even of late several cases have been related, purporting to confirm the ancients. Among others, an instance is put on record by Dr. Ekman, of Colmar, (Laek., Saellsk., Faerhandl, 1851.) However this may be, it does not seem as if in modern times a disease had been observed even approximatively corresponding with the description of our professional ancestors, to wit: formation of small tubercles, in which *pediculus* generate and multiply to an unlimited number, resisting cleanliness, baths, etc., and gradually leading to tabes and death. Some later observations, under the head of *Phthiriasis*, indicate the nature of the error formerly committed; and it is now well understood that the parasitical arachnoideæ of domestic animals transmitted to the

skin of men, will produce effects very similar to those ascribed to that disease. Thus Vogel (Path. Anat., page 414-415) relates as facts, that the various *acarus* species of horses, dogs, wombat, cats, rabbits, camels, etc., have produced cutaneous eruptions upon the human skin not unlike scabies; and Bory de St. Vincent has described a peculiar *acarus*, which was observed in great numbers on a woman, without transmitting the affection to her husband; furthermore, that the same *acarus* has been seen by Busk, on the foot of a sailor. These are, however, indefinite representations, relating to cases in which parasites had infested the skin by accidental communication with animals. More positive is a case of phthiriasis observed and related by Simon, of Berlin. A woman, despite the

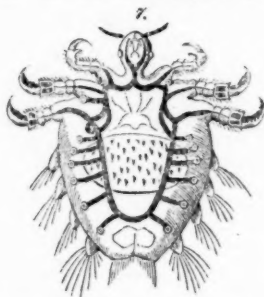


Fig. 5, *pediculus vestimenti*, (female.) Fig. 6, *pediculus capitis*, (male.)

Fig. 7, *phthirus pubis*.

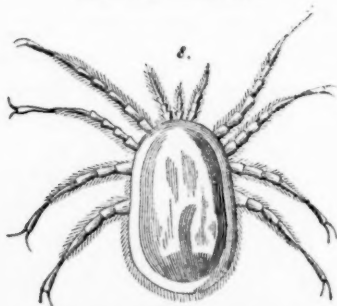


Fig. 8, *dermanyssus avium*.

strictest cleanliness and the application of remedies, had suffered for a long while from numerous small animals, very like the *pediculus* tribe. The parasite, when properly examined, was recognized as *dermanyssus avium*, a peculiar *acarus* of birds, derived in this instance from chickens. Still more decisive is the case of Erdl, which could



have been much easier mistaken for phthiriasis. In examining some cutaneous nodules, not unlike *moluscum contagiosum*, Erdl found them to contain *dermanyssus*. Nitzsch presumes that this parasite can enter the skin of birds, and believes to have once observed this fact in a green finch.

But all this tends to demonstrate that the louse-tribe lives upon the human skin, and not *within* its texture.

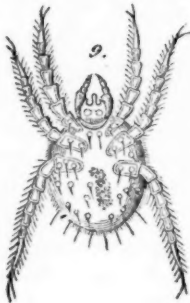
For comparison, however, the diagrams of the various *pediculus* species and the *dermanyssus avium* have been annexed. (Fig. 5-8.)

Dr. Lorenz Tutschek, in conforming to the author's opinions, adverts to the so-called harvest flea, (*Leptus autumnalis*, fig. 9,) living on dry grass, berry bushes, etc. Coming in contact with the skin, they bore themselves in with their heads, and cause itching, nodules, pustules, and even superficial ulcerations. Prof. Emmerich could discover no ducts under the epidermis; and Jahn is convinced that this insect inserts itself into the skin but a day or two, and leaves it again spontaneously, without further consequences. *Leptus autumnalis* can be readily diagnosed by its yellow-reddish color.

There are, however, two parasitical arachnoids deserving special attention. One is the known cause of scabies, and the medium of its diffusion. The other has been often observed as a resident of cutaneous follicles in acne pustules, though its pathological relations have as yet not been clearly determined.

(a.) *Sarcoptes Hominis*. (Figs. 10-13.)

The ancient Arabs seem to have had some knowledge of this parasite. Later zoologists have sometimes adverted to and described this arachnoid. Linnaeus received it into his *systema naturæ*, and gave it the name of *acarus exulcerans*. From numerous references, it can, however, be demonstrated that little was known of its significance in regard to the human body until Renucci, the Corsican, in 1834, disclosed the mode of its detection in the skin. Since then, *sarcoptes hominis* has been the subject of numerous investigations, and both its natural and pathological history has been ascertained to a rare degree of perfection. The fact has thus been established beyond dispute, that the presence of *sarcoptes*, or its sub-epidermal duct, are the only pathognomonic or reliable evidences of scabies. In infants or patients



with a delicate epidermis, those ducts can be easily found. Not so in persons of advanced age, or laborers, whose skin has, by exposure, become firmer or discolored.

The principal seat of this parasite is the hand, (80 per ct.) and it is but rarely observed on the feet, axillary cavity, and trunk, (20 per ct. Bourguignon.) The ducts can best be seen and examined between the fingers or on the volar surface of the wrist, the skin being there comparatively more delicate. Frequently, they can be seen with the naked eye, but more readily with a magnifying-glass.

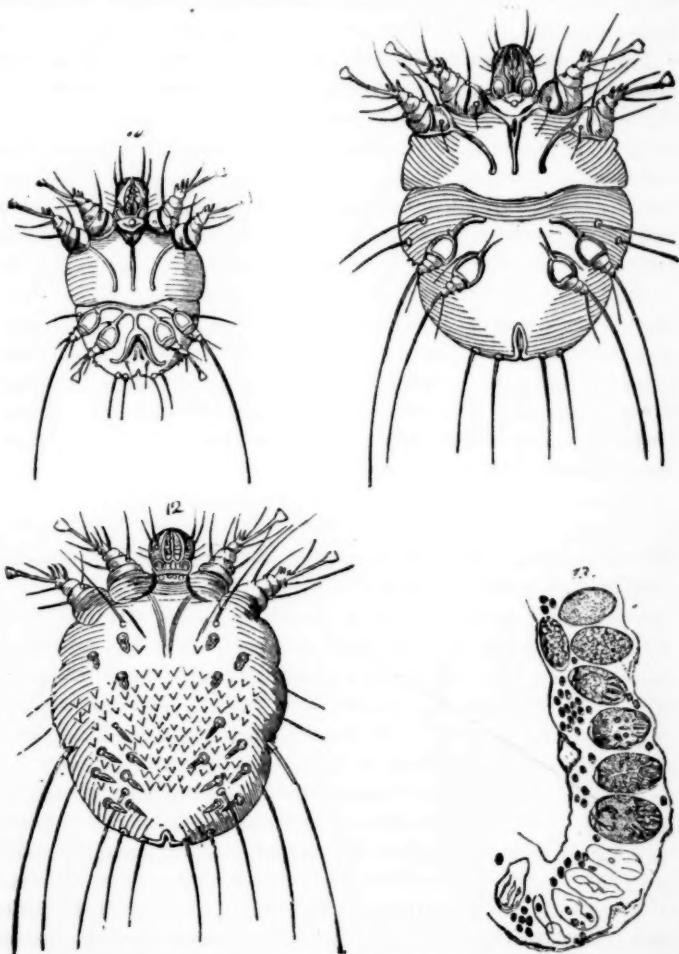
The ducts appear as slightly curved and elevated lines of lighter color than the surrounding skin, sometimes with a bluish tint, and as if filled with water. Their length rarely exceeds a few lines. At one extremity of the duct, there is mostly, but not always, a small vesicle or papula, and this is the place where the sarcoptes enters. The other extremity terminates in a whitish point, being the animal itself. With an ordinary or cataract needle, the duct should be split towards its blind termination. On withdrawing the instrument, the parasite mostly adheres to the point of the needle, and when placed upon a black object, its locomotion may be discerned.

In this simple manner sarcoptes may be found, and thus a reliable diagnosis secured. But for the study of the natural history of the parasite, the method of Eichstaedt, Hebra, and Gudden, should be adopted, consisting in the removal of the epidermal wall of the duct. For this purpose, the skin should be superficially raised in a fold, and removed either by a pair of bent scissors or a sharp knife. The object is then spread upon a glass plate, the raw surface upward, and gradually suffered to dry. So prepared, the object is to be covered with concentrated mastic varnish, and examined under the microscope. The duct is then perfectly transparent and its contours extremely delicate.

The ducts contain only female sarcoptes. The males reside in their immediate vicinity; (worms,) shine through the skin, and require, on account of their lesser size, the use of a magnifying-glass. The male sarcoptes causes less irritation of the skin than the female. In order to bring him under the microscope, the method of Eichstaedt is indispensable.

With a power of from 150 to 300, locomotion and the anatomical construction of the parasite can be readily observed. The largest ducts are occupied by, and filled with impregnated female sarcoptes, ova, and excrementitious matter. (Fig. 13.) They measure one-third millimetre in length and one-quarter millimetre in width; are of oval form, with a flat belly, (fig. 11,) and a convex spiny back, (fig.

12.) The head is short set, has lightly dentated jaws, upper and lower lip, and eight legs, of which four are near the head, ending in sucking cups or disks, and four more posteriorly inserted, each terminating in a bristle. Both size and shape vary according to the para-



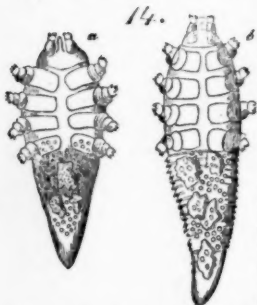
sites being pregnant or not. The male is smaller, one-fifth millimetre long, one-seventh millimetre wide; his hind legs sit closer to each other, and two exhibit the same disks as the fore legs. (Bourguignon. Fig. 10.)

It is further stated by the same author, that the males are not so numerous as the females, (1 to 10,) and that his mode of life differs from that of the latter. His locomotion is more rapid; he creeps along the skin, and is capable of boring himself in within the space of fifteen minutes; digs no passages, and during the night leaves his hiding-place and visits the females in their respective nests.

The contagious nature of scabies depends on the transmission of sarcoptes of both sexes, or of a pregnant female, from individual to individual patient. It follows, conclusively, that a single virginal female or male sarcoptes would not lead to a perfect form of itch, and hence the diagnosis might find some difficulties. For, as already stated, the non-impregnated female sarcoptes makes but a short duct, and the male none at all, and a most careful examination of the whole body, with the aid of a magnifying-glass, is often necessary to find the parasite. Bourguignon suggests, with some probability, that prurigo may be occasioned by single individuals. And Boeck, of Christiana, describes a crustaceous form of scabies, characterized by thick, white-gray, and hard scabs, upon red and excoriated skin, extending even to the nails, in which he found numerous dead sarcoptes, ova, and excrements of the animal. Similar instances have been recorded by Fuchs, Rigler, and Hebra.

(b.) *Acarus Folliculorum*. Simon. (Fig. 14.)

*Demodex follic.*, Owen; *Macrogaster platypus*, Miescher; *Simonea follic.*, P. Gervais; *Steatozoon follic.*, E. Wilson.



This parasitical animal was discovered about the same time, (1842,) by Henle and Simon, and subsequently described in Johannes Muller's Archives of Physiology.

First, it was found in the inflamed sebaceous follicles of the skin, (Acne;) but subsequently, in healthy follicles also, in which they seemed to be perfectly harmless. The question as to its morbid effects upon the human skin has, as yet, not been decided, although the case related by Remak (*Kuchenmeister*, p. 377,) seems to indicate that the *acarus follic.*, under favorable circumstances, may exceptionally become the cause of morbid action.

Most frequently the *acarus follic.* is found in the follicles of the nose, lips, forehead, cheeks, the external meatus of the ear, and behind the ear,

the chest and back. A well-developed follicle should be forced out, the sebaceous cylinder spread on glass, and observed with a power of from 150-300. They can be found most easily in bodies by taking vertical sections from follicles. Their form and the number of their feet vary from three to four pair.

(c.) *Infusoria*.

Of these microscopical epizoes, a great variety are found in wounds and moist places of the skin. Their presence, as far as our knowledge goes, has no pathological interest.

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*On Intra-Uterine Operations.* A paper read by invitation before the New Jersey State Medical Society, at Trenton, Jan. 28, 1859. By A. K. GARDNER, M.D., &c., New York.

No work written within the last half century has done so much to enlighten the profession in regard to uterine pathology and therapeutics, as "*Bennet's Treatise on the Inflammation of the Uterus, its Cervix and Appendages*," originally published in 1845. Its first effect was to separate symptoms from disease; and in the same manner that we now recognize abdominal dropsy—once considered to be a distinct malady—to be either a symptom of disease of the heart, liver, or kidneys, the result of local inflammation of the peritoneum, or the effect of pressure of uterine or other tumors upon the large vessels—so, by the teachings of Dr. Bennet, we recognize leucorrhœa to be not a peculiar disease, but the symptom of various disturbances: as of ulceration of the cervix, exteriorly and interiorly, a simple result of the pressure of a fœtus or tumor in utero, of impacted fœces, or a fibrous tumor in the rectum, and of many other difficulties. The various causes of this frequent symptom being recognized, it has been found easy to apply the appropriate remedies, and leucorrhœa is no longer numbered among the *opprobria medicorum*.

While most medical writers, since the time of the issue of this work, especially in England, have spent their energies in ridiculing and denying the propositions enunciated by Bennet and his coadjutors, many advances have been made in the diagnosis of hitherto obscure uterine affections; new instruments, both for exploration and the application of medicaments, have been invented, and new remedies have been proposed. It is my intention to gather these *membra disjecta* together, and with such new ideas as have occurred to me from my own practical observa-

tions during the last fifteen years devoted to this specialty, to present them to the learned body which has honored me with an invitation to address them, in a succinct manner, with little regard to graces of style or adventitious ornament. If I may chance to draw renewed attention to a class of maladies still imperfectly understood, with the effect of strengthening the hands of those weary in attempting the cure of diseases difficult to diagnosticate, difficult to reach, and far more difficult to cure—if I may fortunately make a single point which shall serve as a starting-place from whence other investigators may go on to new discoveries for their own immortal glory and the benefit of all futurity—then the aim of the present speaker will, indeed, be fully attained.

Passing by the simple ulcerations of the os uteri, about which something might be said as regards the varieties of treatment adopted, I will speak of some of the diseases which occur higher up in this organ, their symptoms and treatment.

There is a class of patients, generally the nervously irritable, whose occupation is in-door, and sedentary, who complain of pain in the back and loins, nausea and irritability of stomach; who, under the influence of excitement, are capable of great bodily fatigue, followed usually by extreme lassitude; generally very regular in their periods of menstruation—sometimes a trifle too profusely, in some cases rather sparingly, and generally accompanied by considerable pain—who present many of the symptoms which lead the practitioner to suppose that it is an ulcerated disease of the os uteri, as described by Bennet, under which the patient labors. Upon a physical examination being instituted—frequently obtained only after much urging, and sometimes by the positive statement that ulceration of the cervix is the certain cause of all the difficulty, that it can be surely and speedily cured by a few applications of a little painful nature—when the educated finger is introduced into the vagina, the attendant feels no enlarged and distorted cervix, no soft, unctuous surface, and the speculum but endorses the opinion too certainly made, that there is no ulceration. But the doctor, disliking to eat his words too frequently, persists in his first statement, and his failure to effect the promised cure, very often not only injures his own reputation, but throws discredit upon the profession to which he belongs, not unfrequently driving the patient to seek for relief from nostrums or quacks.

In many of the cases above mentioned, often seen among the wealthy and inactive, a more rigid examination will show a softening around the os uteri externum, in some cases extending not more than



two lines from the meatus; easily recognizable in many cases by the finger of the careful examiner, seeming as if the finger might be forced into the evidently somewhat enlarged canal. But this is impossible, and the firmer the pressure is made, the harder the tissue seems to be.

Through the speculum this softened portion seems somewhat deeper in color than the surrounding membrane, which has a perfectly natural appearance. The os seems larger than natural, and frequently a drop of limpid or slightly reddened albumen pushes out from the orifice. In other more marked cases this albumen is secreted in larger quantities, and flows quite freely, when all the symptoms are magnified correspondingly. The uterine sound passes with the greatest ease up to and often through the os internum, (and sometimes the canal is evidently not only preternaturally pervious, but also augmented in length.) The entrance of the sound not unfrequently excites an increased flow of colored albumen, or fresh blood, and is followed upon its withdrawal by a copious stream, no matter with what care the instrument may have been handled.

The uterine sound has in this variety of cases made the diagnosis. We have a subacute or chronic inflammation of the mucous lining of the cavity of the cervix, which is aggravated at each menstrual epoch; which no washes can reach, and which neither scarifications, leeches, nor caustics upon the exterior of the cervix uteri, will benefit.

I have now a lady under treatment 30 years of age, married, and childless for 14 years, who suffers agony monthly; who has the os and cervix uteri of a virgin, as healthy to the eye as ever was seen, save the cicatrices from scarifications and leech-bites, applied without the slightest benefit. What is to be done for such cases?

Not unfrequently this chronic inflammation is not limited to the cavity of the canal of the cervix, but is also continued into the cavity of the body of the uterus, constituting endo-metritis. This is recognized by an enlarged condition of the uterus, evinced by the length which the sound can be inserted; by its perception to the touch through the rectum, while the other hand explores its dimensions through the parietes of the abdomen; by its increased sensitiveness; some symptoms of prolapsus from its augmented weight; and frequently by the very large leucorrhœal (albuminous and mucous) exhalations. White-head gives us the only symptom revealed by the speculum, the presence of a "bright-red ring surrounding the verge of the os uteri."

When this subacute inflammation is confined to the lower portion of the canal only, and thus necessarily of small extent, it may be

reached by a stick of nitrate of silver, and a very few applications will cause the disturbance to entirely disappear. It has been recommended by Whitehead and others, to inject a solution of this caustic into the uterine cavity, or as far up the uterine canal as may be necessary. (See my work "On the Causes and Curative Treatment of Sterility," in which I have described an instrument adapted for that purpose, which I have frequently used.) But the extreme danger, and the constant accompaniment of most agonizing pain waiting upon every operation, have obliged me to desist from the use of any liquid applications to the cavity of the uterus. Experience has shown that the injection of any liquids—pure water or the blandest oil—has been followed by the same results; and latterly I have used the following ointment:

R.—Nitratis Argenti, (crystals,) ʒii.

Ext. Belladon. ʒi.

" Stramonii, ʒss.

Sulph. Morphæ, grs. v. to x.

Ung. Spermacet. ʒii.

M.

This ointment I inject into the cavity of the neck or the body of the uterus, as the disease may be; and it is most noticeable, that while a half drachm of fluid is productive of such extreme pain, this ointment, except in persons of marked uterine sensibility, rarely produces any unpleasant sensation. When the pain is felt to be excessive, I allay it by a suppository of two grains of opium, inserted in the rectum, and increase the morphia in the recipe as may be found advisable.

The instrument with which the ointment is inserted is a metallic tube fitted with a piston, and may be filled with such an amount of the ointment as may be desired. It is to be passed along the side of the finger till it reach the os externum; then, carefully inserted, it is to be pushed up as far as it will easily go, (if the cavity of the body is diseased, the os internum will be relaxed,) and when arrived at the desired point, by pushing in the piston the contents are evacuated, which speedily melting, effectually medicate the diseased tissue. This ingenious instrument is the creation of my friend, Dr. Fordyce Barker, who has proved its efficacy in repeated instances.

I may also mention in this connection, that this intra-uterine treatment will also be found of great service in the profuse menstruations and intermediate hæmorrhages which so frequently follow abortions. A marked instance of this character, which I saw in consultation with Dr. Dalrymple, of New York, is fresh in my memory, but as time will not permit me to authenticate the various statements made in this paper, I shall pass it by with this simple allusion.

*Stricture of the canal of the cervix*, a cause of dysmenorrhœa and sterility, is very easily overcome by the uterine sound, by the graduated sounds of Simpson, by sponge-tents carefully applied, and with a due regard to the exigencies of each particular case—when the case is uncomplicated, when it is a simple contraction of the calibre of the canal, the result of inflammation; but when it is mechanical, the contraction being due to the doubling of the canal sharply upon itself, caused by a coexisting ante or retroflexion, or when the stricture is due to the presence of small fibrous tumors, so developed in the parenchyma of the body or cervix of the uterus as to mechanically obstruct the passage, then relief is not so easily afforded.

In the doubling of the canal by the flexions of the uterus, resulting in simple mechanical stricture, the ordinary uterine sound made of hard metal will frequently be found incapable of introduction, for a strait instrument will not pass through this curved passage unless the uterus is straightened by the pressure. This is not easily effected; sometimes from the stiffness of the uterus, sometimes from the catching of the point of the instrument in some of the mucous crypts and sulci, or the cervical rugæ, the reduplications of the lining mucous membrane. For this purpose it is necessary to have a sound made of pure copper, galvanized or not with silver, which can be bent and re-bent as desired. By the use of this instrument, curved at the smallest arc possible, and this being gradually straightened, the uterus may ultimately be restored to its normal position; and finally, by wearing a stem-pessary, may be retained in this situation till the tendency to displacement is overcome.

If, however, the uterus has been in this abnormal position for any length of time, then inflammation, more or less acute, has occurred, and at one or more points there have been deposits of fibrin, which have made a stricture which will not be overcome by a change of position, and which will even bind down the uterus to the position into which it has fallen, so that it is impossible to restore it to the normal situation. I know of no method of curing this stricture but the knife. By careful manipulation, a probe-pointed knife, or a Simpson's concealed bistoury, may be passed through the stricture, and withdrawing it, the stricture may be completely divided. This operation is effected without pain, although sometimes followed by very considerable hæmorrhage, which may be arrested by tamponing the cervix and vagina.

Should the stricture arise from a small fibrous tumor developed in the stroma, an incision down upon it from the canal outward, will

allow the tumor to push itself out into the canal, thus enucleating itself, when, after this is effected, if small, it may be scraped away with the curette of Recamier, twisted off with a torsion forceps, or cut off, as most convenient. These operations are of a delicate nature, requiring careful manipulation, and, from the delays between the various steps, are often tedious and vexatious.

I have enumerated but the general heads under which stricture of the canal of the cervix may be classed. The varieties of cases which come under these generalities are numerous, giving those who are specially engaged in treating these kind of cases constant variety, and a renewed demand for study and ingenuity. It is to be hoped, with increased observations, that new classifications of this perplexing difficulty may be made, which shall lead to new and more certain methods of diagnosis, a more facile mode of exploration, and speedier and more certain means of cure.

The instrument which I here present I have invented for the purpose of facilitating these operations. It is manifold in its character, but its principal feature is the movement which can be given to the end, thus facilitating the entrance of the sound into the uterine cavity, raising the uterus from its flexed condition without any withdrawal of the instrument, applying the knife in any desired position, applying caustic at any angle, &c. (See Tyler Smith's *Obstetrics*, Am. ed., p. 198.)

We pass now to the consideration of *intra-uterine polypi*.

The existence of intra-uterine polypi is no new discovery, for they were observed and described before the middle of the 18th century. Their existence is easily recognized when large, but to the important point of their diagnosis when small, modern science has afforded much assistance. When our attention is drawn, by reason of persistent hæmorrhage, coming on at irregular intervals and in large gushes, to the state of the uterus, and we discover it much increased in size, the os partially admitting the finger, we can get much aid from the sound which tells us the dimensions of the cavity, whether or not filled by a solid body, and perhaps the point of its union with the uterus and its size at its junction. But when we are not able to obtain this information, we have recourse to sponge-tents, with which in many cases, (in not all, however,) by persistence, we can dilate the os uteri so as to thoroughly explore the uterine cavity. If we then find a fibrous or other form of polypus, we need have no great difficulty in twisting it off, if small, by means of torsion forceps; if larger, by passing the chains of an *écraseur* around it, and thus amputating it; strangulating it by ligature, or cutting it off with bistoury or scissors.

There is some diversity of opinion as to the manner of separating tumors from the uterine wall. Ordinarily, they may be cut off with scissors or bistoury, without much regard to the hæmorrhage, unless the patient be so reduced that the slightest loss of blood is to be avoided. The substance of the fibrous tumor is very rarely permeated by blood-vessels, which, however, are ramifying and freely inosculating upon its exterior surface. A pledget of lint, wetted in the tincture of Benzoin, placed upon the cut surface, and a tampon in the vagina, will remove any danger from excessive hæmorrhage. The danger from pyæmia from the absorption of the débris from the suppurative destruction of the polypus when ligatured, is avoided by the removal by incision, which is a consideration of no little importance. The *écraseur* of Maisonneuve is a compromise between these two methods, but open to the objection, that instead of a smooth-cut surface, it leaves a ragged and crushed surface, which will heal only by granulation.

If the polypus be fibrous, and so large as to render such operations impracticable, the body is to be seized by hooks, hooked forceps, or even with an ordinary obstetric forceps, and forcibly drawn externally, and there subjected to such operation for its removal as may be deemed advisable. The force required for thus extracting an intra-uterine polypus is so great as not only to displace the uterus from its situation, so as to bring it down upon the perineum, but it also necessarily inverts it, in order to expose the point where the pedicle unites with the uterus. Upon this pedicle being cut, the uterus often returns to its natural position with an audible snap, like that made by the hollow india-rubber ball of a breast-pump or syringe, when the pressure upon its sides is removed and it suddenly resumes its natural position.

Sometimes, however, we find that the enlargement of the uterus is not due to a pediculated tumor which hangs from the uterus, but we have a fibrous tumor developed in the uterine stroma. Sometimes this is found to be immediately under the mucous membrane; but even if it is not so superficial, the best treatment—if any treatment is necessary—is to cut down upon it, making a deep incision through the mucous membrane of the uterine cavity, through any intervening tissue, down upon the tumor. It is better that the incision should penetrate the tumor than not to attain to it, for the fibrous tumor being bloodless, no ill result can ensue. We expect a double result from this incision. We take off the pressure—the cause of the hæmorrhage—by cutting through and thus destroying the congeries of enlarged and congested vessels enveloping the tumor; and secondly,

we allow the tumor to enucleate itself, and thus to transform itself into a fibrous polypus, permitting, at some after period, an easy removal by any of the means already mentioned. It is to be hoped that some subacute inflammation may take place in the tumor, resulting in a suppurative disorganization, for we know the marked tendency that fibrous tumors of the uterus have to degenerate when disturbed. This is especially noticeable in those tumors which accompany pregnancy, and which, when injured by the pressure of parturition, and perhaps deprived of some portion of their accustomed nutriment by the arrest of the uterine circulation consequent upon the return of the uterus to its natural size, and the closure of the uterine sinuses, degenerate and slough away.

The secondary effect of this incision, even if not successful in the main purpose of effecting the enucleation of the tumor, is to diminish the hæmorrhage, at least temporarily. That, attendant upon the operation, is easily controlled by the tampon or the colpeurynter.

It should be especially borne in mind that, in all intra-uterine operations, the season for their employment should be selected with particular reference to the usual period of menstruation. Even if the menstruation has been absent for several months, being arrested by debility, or perhaps confounded with the hæmorrhages which have occurred irregularly, yet the *molimen menstruale* is still present, and might seriously affect the success of the operation.

In this connection I must allude to a proposition made by Dr. H. R. Storer, of Boston, which is distinguished for its boldness, but which seems to be of questionable practicability. It is the injection of powerful caustics, as the hydrate of potash, into the uterine cavity, for the purpose of destroying polypi and sessile tumors, when it is impossible to effect their successful removal in any other manner. Dr. Storer claims to have succeeded in this manner.

It ill becomes any one, in this age of wonders, to refuse to accept, without a trial, a statement from any one distinguished for the ability and honesty which characterize Dr. Storer, on the ground of its improbability, or of some supposed danger. There are, unfortunately, abundance of hopeless cases, at present, which cannot be injured by any treatment—to whom death, even, would be welcomed. We have abundance of opportunities for any trial which gives a shadow of hope. Much as uterine pathology has advanced in the last fifteen years, may we not hope for further and more distinguished additions to our knowledge during the coming similar period? Shall we receive the talent that is given us, and hide it in a napkin?



*On a very Important Characteristic Sign in the Medico-legal History of Attempts at Rape.* From the French of DR. LEGRAND DU SAULLE.

That criminal attacks on very young girls have become very frequent lately, not only in the great centres of population, but also in the country, is apparent to any one who casts his eyes over a judicial journal. In view of the medico-legal difficulties which swarm, so to speak, about the steps of the practitioner, it is our duty to collect and propagate all the new facts which science produces, and which are really calculated to guide experts in their investigations, and to shed new light on the results of these investigations. With this object in view, it is proposed to direct attention to a particular mark which is very often observed in little girls who have been several times exposed to attempts at rape, or have prematurely given themselves up to corrupt habits—we refer to the infundibuliform depression of the vaginal orifice.

It is an easy matter to obtain a tolerably accurate observation of this vulval deformation. In fact, the genital organs of children of twelve or thirteen years are almost in a rudimentary state, and consequently unfitted for the copulative act. All attempts on the part of an adult male towards the intromission of the penis must, hence, completely fail in a large majority of cases, by virtue of the manifest physiological disproportion that exists between the narrowness of the vagina and the size of the virile member, and the result is that the extremity of the rigid penis simply exercises friction or pressure (more or less energetic) against the vulva. When there is simply friction, there is left no mark, for the ejection, quickly produced by the venereal super-excitation, does not delay to abridge the duration of this veritable erotic mania; but when there is pressure of the gland, frequently renewed, against the space between the labia majora and the periphery of the vaginal orifice, the result is a slow and gradual deformation of the parts, and the unfortunate children will carry thenceforth the physical trace of their premature defilement.

This fact was partly noticed by Dr. Boys de Loury, the surgeon to the prison of St. Lazare, equally suspected by Dr. Toulmouche—a medico-legal gentleman of great reputation, and Professor in the Preparatory School at Rennes; but it is to Mons. Ambroise Tardieu, *Professor agrégé* of Legal Medicine in the Faculty of Paris, whose careful scrutiny nothing escapes, that the merit belongs, of having first diligently studied everything relating to the medico-legal history of attempts on female virtue, and of having determined the nature of the lesion we are noticing.

In 181 examinations of criminal attempts on females, Mons. Tardieu has met with the characteristic deformation in 60. The ages of the victims were as follows: twenty-nine of 11 years; twenty-six from 11 to 15 years; four from 15 to 20 years; and one, an exceptional case, a female aged 41. Tardieu was first struck, in his numerous examinations, by the premature development of the sexual organs, and this excessive anticipation contrasting so singularly with the age, stature, strength, and general constitution of the smaller girls. Some at 10 and 11 years presented indications of nubility almost perfect. The labia majora were thickened, were separated at the inferior portion, the vulva widely open, the labia minora so increased in size as almost to exceed the labia majora, and as if they had been subjected to repeated stretchings; the clitoris increased in size may have been caused, as is often the case, through the influence of onanism; frequently red, and, in part, uncovered. Coming to an exact description of the deformation, which he thinks should be made of great account in the future of criminal trials for attempts at violence, Tardieu expresses himself thus: "The smallness of the parts and the resistance of the sub-pubic osseous arch opposing the complete entrance of the virile member and the destruction of the hymen, have, as a consequence, when attempts at sexual connection are made, the forcing back of the hymen and all the parts that compose the vulva. The result of this is the formation of a species of infundibulum, more or less capacious and of greater or less depth, capable of receiving the extremity of the penis, and very analogous to that which has been shown as a characteristic of Pederastia. The hymen-membrana, occupying the bottom of this infundibulum, forms a kind of projecting cushion, pierced in the middle by an opening with fringed edges. Oftener the hymen is thinned, retracted, and reduced to a sort of ring or circular fold, which leaves the orifice open. It is not most usual, in consequence of a rupture, that the hymen is found thus diminished, although in some cases there may be found an incomplete tearing on its free edge; but the membrane has undergone a species of wearing, and the atrophy has resulted from the repeated pressures it has received, the resistance to which it has almost alone supported.

"When we examine this in young girls who are near the age of puberty, or who have attained it, there will be found sometimes a widening of the vulva, and the hymen will be seen relaxed, and, as it were, floating before the enlarged vagina, whose entrance it does not prevent. Thus, by a series of repeated efforts, perfect entrance may

have been obtained, followed even by pregnancy, although the hymen has not been destroyed."

These views of Tardieu are then corroborated by an enumeration of some cases, which show that this infundibuliform appearance is so frequent an effect of attempts on female virtue, that its appearance may be looked for with some certainty in a case. It is an important subject in legal medicine, and this sign, along with others, may lead to conviction, where such a result could not be had without it. Cases of this kind are reported all too frequently in our own journals, and experts must prepare themselves for their full examination.—*Gaz. des Hôpitaux*.

L. H. S.

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*Formation of Oxalate of Lime in Mould.*

Vulpian exhibited some microscopic preparations, presenting numerous crystals of oxalate of lime in the mould that had been developed on some anatomical preparations. It is known that such preparations, preserved in a weak aqueous solution of chromic acid, very readily mould, and that this effect requires constant examination of the preparations, and a complete renewal of the solution from time to time. He found that the *mycelium* of this mould always contained numerous crystals, approximating in form to those of the oxalate of lime. It is only necessary to let animal tissue remain in a solution containing one per cent. of chromic acid for a certain time, without renewing the liquid, and without hermetically closing the vessel, to insure the appearance of such mould.

It is in the submerged layer, the mycelium, that the crystals appear in quantity, growing progressively with the increased extent of the mould. The crystals present very different forms, although derived from the same type, which is the regular octahedron. They resemble the well-known crystals of oxalate of lime, which are encountered in the urine. They rarely exhibit the primitive typical form—most frequently presenting a right truncation of each angle of the base. This is sometimes so slight that the form is scarcely modified; but they often give the crystals appearances which are very difficult to understand. When their magnitude is increased they assume the form of prisms, with a square base and pyramidal summits.

The author had not obtained a sufficient quantity of the crystals so as to subject them to direct analysis, but concludes that they are

composed of oxalate of lime from the following reasons: their form is octahedral, or derived from the octahedron; they are insoluble in water and alcohol, in soda and acetic acid; soluble, without effervescence, in nitric and sulphuric acids, with the formation, in the latter case, of characteristic crystals of oxalate of lime.

These crystals are formed in the mould, and not by the action of the chromic acid on the animal tissues, although this acid must have some influence in their production, as they have not been found in mould produced in preparations that had been immersed in alcohol, and then dried. Chromic acid is an oxydizing agent, and thus it may favor the production of oxalic acid, at the expense of the organic matter. It is true that we might admit that oxalic acid is formed directly, at the expense of the atmosphere, from the mould, and that the chromic acid and the results of its action on animal matters have no special influence. As for the lime, it is a constituent of the water employed to make the solution, and of the animal matters experimented upon.

The presence of nitrogenous material has a very great influence on the production of crystals of oxalate of lime, or rather upon the development of the mould, which determines their production. On the 27th April, 1858, Vulpian placed in a bottle a solution containing one per cent. of chromic acid, with some sugar, and on the surface of this solution some mould that he had taken from a vessel where the oxalate crystals were produced. There was no rapid production of mould for some months, and on the 15th of October he could detect no crystals of oxalate of lime, although the water contained a large quantity of salts of lime.

In a similar experiment performed at the same time, where, however, he placed on the surface of the solution some scrapings of kidney beans, in a short time (15 days) the whole surface of the liquid was covered with mould, and in its mycelium large quantities of the crystals were found.

During these experiments the author found similar crystals in the bladder of two frogs. The animals had had their spinal marrows cut transversely, and survived the operation for ten days. The bladder in each case contained much liquid after death; in one there was a slight deposit of a substance somewhat flocculent, which microscopic examination showed to be composed, in a great part, of filaments of *mucedineal*, containing, in their midst, oxalate of lime; in the other there was a deposit of a granular character, not saline, and probably of a mucous origin; and in this deposit the crystals were found.

It may now be asked, whether a portion of the oxalic acid, found

combined with lime in the urine of the herbivora and in that of man, is not formed in the bladder, from contact of the living epithelium, which should possess in the production of this acid an action analogous to that which is possessed by the vegetation of mould.—*Gazette Médicale*, Jan., 1859.

L. H. S.

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*Poisoning by Quadroxalate of Potassa.*

Dr. Jules Worms describes a case of poisoning, by this agent, in the *Gazette des Hôpitaux*, which is interesting on account of the successful employment of a substance heretofore considered as increasing the danger in such cases, viz.: the bicarbonate of soda.

It seems that 15 grammes of cream of tartar had been prescribed for a chlorotic woman. On taking the article brought from the pharmacist, she was seized with acute pains in the stomach, with a tendency to emesis. Countenance anxious and pale, covered with a cold sweat; eyes sunken, skin cold, pulse feeble, fingers and nails blue, like those of cholera patients. She complained of burning in the stomach. The matters ejected from the stomach were frothy, white, mixed with some brown patches.

On tasting some of the substance taken by the patient, which had been left in the glass, it was at once suspected to be the commonly called *salt of sorrel*. A strong solution of *bicarbonate of soda* was administered, and after considerable eructation, a diminution of epigastric uneasiness was experienced, and the efforts to vomit ceased. The use of the alkaline preparation was continued along with an aromatic infusion, and at the end of half an hour the voice became distinct, the skin warm, and the pulse fuller. Epigastric pains were still complained of, and violent pains, also, in the lumbar regions, doubtless occasioned by the carbonic acid gas. On examination of the bottle from which the medicine had been taken, it was satisfactorily ascertained that the substance was quadroxalate of potassa, and that consequently the patient had taken fifteen grammes.

The poison was taken in the morning; by evening the stomachic and lumbar pains became again intense, but pressure on the epigastrium gave very little uneasiness. Pulse was again feeble, although better than in the morning. Some table-spoonsful of an amylaceous broth were borne without pain. The bicarbonate was continued for two days, during which there was a strong acid taste of the poison in the mouth of the patient. She remained with a frightful pallor;

suffered at the stomach, although the pain was not increased by the ingestion of light articles of food. Improving slowly from day to day, at the end of a week she was able to resume her ordinary duties.

Dr. Worms publishes this case because he thinks it shows the advantage of employing as antidotes for poisonous acids or acid salts, soluble bases instead of an insoluble base mechanically suspended in water, as usually recommended, such as chalk, plaster, and magnesia. The chalk, for example, is very irregularly applied to the surface of the stomach which the poisonous liquid covers, so that there is not general neutralization of the poison. It is also an advantage to have a very soluble compound, produced by the neutralization, the absorption and passage of which through the digestive passages may be without danger. Besides this, the mucous coat of the stomach being injured by a caustic acid, and then covered by oxalate of lime, would be placed in an unfavorable condition for cure, as the elimination and removal of the insoluble salt would be difficult, requiring considerable time and violent efforts. Such inconveniences will be avoided by the employment of bicarbonate of soda, especially where it is required to neutralize sulphuric, nitric, and oxalic acids. Few neutralizations are so rapidly effected as that of quadroxalate of potassa by the bicarbonate of soda.

We have given the above on the authority of Dr. Worms, but we are obliged to append our doubts as to the efficacy of the antidote referred to. Taylor specially cautions against "the exhibition of the alkalies—potash, soda, or their carbonates: since the salts which they form with oxalic acid are as poisonous as the acid itself." It seems to us that the cure in the case reported was occasioned by the thorough emesis to which the patient had been subjected. The use of alkalies in cases of acid poisons is not new, as it was first proposed by Dr. Ebers, of Breslau —ORFILA, *Toxicologie*, I. 122. I. H. S.

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*Report on the Vital Statistics of the United States, made to the Mutual Life Insurance Company of New York.* By JAMES WYNNE, M.D. New York: Bailliere, pp. 214, 4to.

The book whose title we have quoted has been on our table for some months, demanding examination and notice; that neither have



yet been given it in the MONTHLY, cannot be explained on the supposition that inclination had been wanting to draw the attention of our readers to it. There are some books so well condensed by their authors that it is almost impossible to make an abstract, or to prepare an epitome of their contents. In their very nature they are condensed epitomes, and all the reviewer can do is to give an idea of the subjects treated, and the character of the treatment. Dr. Wynne has furnished such a book in this Report on Vital Statistics. It was prepared at the instance of a Life Insurance Company of New York, and published at the expense of nineteen different organizations of this kind—in itself a fact suggestive of the important practical character of the Report, in which light alone it would be received by insurance companies.

Dr. W. has had access to the best sources of information as regards the statistics of vitality under varying circumstances, and, with commendable diligence and skill, has classified and arranged these, so as to give us a very accurate idea of the present condition of our knowledge. Traces of hard labor in that most troublesome and harassing field—statistics—meet us on every page. We are aware how liable such tables of statistics are to error—how strikingly they contradict the old saw, "*that figures will not lie.*" It is difficult to establish proper principles for their preparation, and still more to have reliable persons engaged in this duty. The circumstances which may make them useless are many and various; but such as they are, even with all their imperfections, they form excellent aids to the statistician, the sanitarian, and the insurance company. Such as they are, when given to the painstaking student, he is enabled to employ them for the advantage of his race. The results obtained by their examination do not tend to the production of fatalism, in theory or practice; but to a profound recognition of an all-protecting Providence. When we see a *fixed* death-rate, running through years, it impresses us with the idea that something more powerful than man is controlling the destructive steps of death, and bringing even his forays into order and system. The same idea naturally arises when we look at the fixed percentage of births. But there is a direct benefit to the physician, arising from such statistical tables. He is placed by them in a position where he can satisfy himself as to the improved hygienic condition of his neighborhood; when the death-rate has diminished, or when this has increased, he is made to understand how some extraneous causes have been added to the morbid agencies. From all this, such information can be obtained as will enable him to perform the duties of his

profession, with an intelligent appreciation of its results, not otherwise to be obtained.

We hope that the next census of the United States will be placed in charge, not of politicians, as a reward for labors in the caucus, and at the hustings, but of men of science, who have studied the subject of statistics, and who shall be able to supply us facts, and their proper value; in this way the decennial census will be something more than a mere collection of stupid figures, and will be made to teem with life and interest to every physician and student of science in the land. In this way the government will be lending aid of a most valuable character to writers who, like the author of the present report, are disposed to discuss the laws of vitality and of death. L. H. S.

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*A Treatise on Fractures.* By J. F. MALGAIGNE, Chirurgien de l'Hôpital Saint Louis, &c., &c., with one hundred and six Illustrations. Translated from the French, with Notes and Additions, by JOHN H. PACKARD, M.D. Philadelphia: J. B. Lippincott & Co., pp. 683.

This is a very valuable book. The name of the author is sufficient in itself to attract attention, known as he is to all who have any acquaintance with the French school of medicine, while the subject is one of constant interest to every one who makes the least profession of practicing surgery. Its arrangement is very excellent, consisting, in the first place, of a general discussion of fractures, their causes, their varieties, their symptoms, their course and termination, their treatment, complications, results, and deformities; more than one third of the volume being thus occupied; the remainder consisting of a discussion of individual fractures. Of course the general doctrines are French, but we find constant and abundant reference to the English and American authors.

Dr. Packard has performed his duties as translator in a creditable manner, having been unusually successful in avoiding the introduction of foreign idioms, a fault into which almost every one falls, and, from the necessity of the case, almost unconsciously. Dr. P. has also succeeded quite well as an editor, though his additions might have been improved if he had had a more extended acquaintance with the professional periodical literature of our country. He does not appear to be conscious that there are more than one or two journals published in our country. The effects of this neglect or ignorance will perhaps be more strikingly illustrated by reference to the section on fractures of the

neck of the inferior maxillary bone, of which Malgaigne says, that "it is excessively rare, and for my own part I have never seen it," and to which the editor adds a memorandum of a case "diagnosed [better *diagnosticated*] during life, and verified by *post-mortem* examination." A case of this injury discovered during life, verified by several surgeons, and *treated successfully* in a new and "excessively" ingenious plan, after all ordinary appliances had been found incompetent to retain the parts in apposition, was reported by Dr. Heydock, of Chicago, in the medical journal of that city, and copied into the MONTHLY, as well as into quite a number of other of the journals, during the past year. No notice of it appears in the editorial comments of this volume. There are other instances of a similar character, but it is not necessary to enumerate them.

The paper and the print of the book are very good. One thing we hope may be changed in the next edition, for we believe there will be a demand for repeated editions, and that is the running heads at the tops of the pages. There is no manner of use in repeating "a treatise on fractures" six hundred times, as is done in this volume, each page bearing these words; but there would be very great convenience to the reader in having the subject of each page announced in full upon it. It would save much turning to the index and waste of time, to say nothing of patience.

This book must take rank as a standard authority upon fractures.

P.

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*A System of Human Anatomy—General and Special.* By ERASMUS WILSON, F.R.S., &c. A New and Improved American Edition, from an Enlarged London Edition. Edited by WILLIAM H. GOBRECHT, M.D., &c., with 397 Illustrations on Wood. Philadelphia: Blanchard & Lea. 1859.

It is a trite proverb, that "good wine needs no bush." It is equally true that a book so universally known, as is this, needs no introduction to the profession of this country at the present day, through the medical press. It has been tried, studied, thumbed, laid on too many dissecting-tables not to be thoroughly known in all its merits. There is, then, no necessity for a word of praise in its favor, as it still remains the favorite text-book on anatomy throughout the country, having enjoyed this reputation for many years under the editorial supervision of Dr. Goddard.

The present edition is a reprint of the seventh London edition, with

all the revisions of the author made in 1857. Dr. Gobrecht, the present editor, has carefully reread the work for the American edition, corrected a few errors which had escaped the detection of the author, has made a few additions, incorporated in the text more than a hundred new illustrations, and has rendered this edition the most complete work on general and special anatomy now issued from the English press. It is a work that every student should have, and once possessed of it, he should make it his constant companion. D.

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### SELECTIONS.

*On the Artificial Production of Bone by Transplantation of the Periosteum, and by Osseous Grafts.* By M. OLLIER.

The following is a brief abstract of the papers by M. Ollier which have recently excited so much attention at the "Académie des Sciences."

Notwithstanding that the experiments by Flourens and others may be considered to have decided the question of the agency of the periosteum, M. Ollier, in order to elucidate certain undecided points, determined to institute new series of experiments of a very varied and novel character. All the details of these experiments have been laid before the Biological Society; and those of them which relate to transplantation in the same animal are given at length, with illustrations, in Brown-Séquard's *Journal de Physiologie* for Jan. 1859. Here are the results:

I. *The artificial production of bone by means of the transplantation of periosteum.* (1.) *Transplantation in the same animal.*—Although the experiments were also performed on other animals, the rabbit was especially the one selected. The strip of periosteum was generally detached from the tibia, as being very accessible; and wherever this strip was grafted or secured, there was bone produced. a. *The flap of periosteum retains its attachment to the base by one of its extremities, the rest of it being lodged within the muscles, under the skin, etc.; and consequently it continues to receive some vessels from the bone.* A strip may be obtained from the tibia, long enough to wind round the bone or to twist into a spiral or figure-of-eight form, around the deep muscles, a cavity in these having been first hollowed out. If the rabbit be young and vigorous, immediate union usually takes place, and the animal seems scarcely to have suffered from the operation. The periosteum contracts adhesions with the tissues, amidst which it is placed, and new bone is formed at its under surface, this new bone assuming the form and disposition of the periosteal flap. The amount of bone thus formed diminishes in quantity, however, with the age of

the animal. Thus in a five-year-old rabbit, a mere trace of osseous tissue was found, the remainder of the periosteum being still fibrous. The new bone adheres to the old bone whence the periosteum has been borrowed, and that by so considerable a base as to give it the appearance of an apophysis. *b. The communicating pedicle of the flap is excised* three or four days after the transplantation, so as to cut off all communication with the bone. The ossifiable exudation continues none the less, and new bone is produced, which is adherent or movable accordingly as the strip is reapplied to the bone or left quite independent. *c. The flap is completely divided at the time of the operation,* and transplanted amidst neighboring or distant parts. Thus the strips have been transplanted under the skin of the groin, the back, etc., or placed in the midst of the crest of a cock; and in all instances ossifiable secretion has resulted—the osseous production being large in proportion to the size of the animal and the extent of the periosteal strip. Bones of from one to three centimetres in length, and of varied form, have been produced. The nature of the medium in which the transplantation was effected influenced the result; and the crest of the cock, owing to its rich vascularity, constituted an excellent soil for this artificial osteogenesis.

(2.) *Transplantation of the periosteum of one animal to another of the same or of a different species.*—These interchanges have been tried between the dog and the rabbit, the rabbit and the guinea pig, the fowl and the rabbit, and the dog and the fowl. Periosteum transplanted under these circumstances may comport itself in different ways: *a.* Occasionally it may become absorbed soon after the transplantation: *b.* it may become gangrenous, and be discharged by suppuration—and this was almost constantly the case at Paris with respect to rabbits, in which the periosteum of the dog had been applied: *c.* the flap may remain encysted without giving rise to suppuration; the cysts after a while being found to contain only fatty matter or concrete pus: *d.* the periosteum adheres to the surrounding tissues, and is penetrated with new vessels, but it has lost its osteogenic properties, and continues only as a vascular and fibrous membrane: *e.* The periosteum not only contracts fibrous and vascular adhesions, but produces osseous tissue. This is brought about with much more difficulty than in the case of transplantation in the same species, depending upon conditions which require to be more accurately ascertained.

(3.) *External appearance and structure of the bone produced by transplantation.*—The bone thus produced is not a mere calcareous concretion, or even an unformed mass of osseous substance. Its texture presents a disposition analogous to that of normal bone, and the microscope shows that the bony corpuscle is the fundamental element. Externally, the bone is clothed with periosteum. It is hollowed into medullary spaces, (filled with a substance resembling fetal medulla,) which afterwards unite into one large cavity. The new bone may be adherent or not to the old one. In the former case it is no production of the old bone, but a new bone added to the old one, increasing side by side with it, but not living at its expense. Tracing the

development of this new bone from the commencement, we may convince ourselves that it is formed from a subperiosteal blastema, issuing from the under surface of the periosteum; and if we scrape one-half of this surface with a scalpel, we then destroy the germs of future bone, and the osseous tissue will only be produced by the half that has not been scraped.

II. *Osseous Grafts*.—M. Ollier has performed a series of experiments, in which bones entirely separated from the soft parts, but surrounded by their periosteum, have, when transplanted, continued to live in their new localities, increasing according to the laws of their normal development. This, however, as yet, has only obtained with regard to the bones of the same species of animals; the bone under other circumstances, only apparently grafting, becomes encysted. The preservation of the periosteum is the one thing essential for the success of the transplantation. Without this, the osseous tissue does not appear to possess sufficient vitality for the contraction of vascular adhesions; and although it offers more or less resistance to absorption, it at last disappears.—*Gazette Médicale*, 1859, Nos. xiv. and xv.—*Medical Times and Gazette*.

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*On the Identity of the Meconium and Vernix Caseosa.* By Prof. FORSTER.

The general opinion respecting the meconium is, that it consists in a mixture of bile, intestinal mucus and intestinal epithelium; but microscopical examination shows that besides the coloring matter of the bile it is composed chiefly of the vernix caseosa. For the most part it consists of small flat scales, which present all the characteristics of horny epithelial plates completely corresponding to the horny scales of the vernix. Under the microscope, the meconium only differs from the vernix by the presence of the yellow coloring matter and the smaller number of fat globules. A proof of the identity is its containing minute hairs in just the same numbers as the vernix, which, indeed, without the microscope, may be separated from it by a needle. The horny scales could have no other source than the vernix, for the stomach and intestinal canal are lined with cylinder epithelium, and the mucous membrane of the mouth and œsophagus does not give rise to them. Besides these scales, we observe in the meconium fatty globules of different sizes, crystals of cholestearine, and irregular yellow and brownish clodlets, which give the dark color to the meconium, and are doubtless biliary coloring matter. The fatty globules are evidently of cutaneous sebaceous matter, and the cholestearine is in part derived from the bile, and in part from the decomposition of the vernix during its passage to and deposit in the rectum.

The fetus swallows from time to time some of the liquor amnii having the vernix swimming in it, and the hairs and horny scales pass unchanged along the intestinal tract. Whether any of the sebaceous



matter is taken up by the lacteals may perhaps be determined by microscopical examination of the intestinal villi of the fœtus; and it would be interesting to determine, by numerous examinations of the intestinal canal, at what period this swallowing of the liquor amnii commences. As the elements of the vernix are only suspended in the liquor in small quantities, a large quantity of this must be gradually swallowed to lead to the amount of meconium usually present. The water must be soon absorbed from the stomach, as it is never found in it. The greater proportion is probably excreted by the kidneys, and again reaches the amnios. That it in nowise contributes material to the nourishment of the fœtus has been shown by Bischoff; but that does not prevent it serving some purpose in the economy. A regular examination of the entire contents of the intestinal canal in numerous fœtuses of different ages, is required to elucidate these points; and especially would such examination be of interest in the case of monsters. That the acephalæ have no meconium has long been known, and has usually been attributed to the absence of the liver. This would, however, only explain the absence of its dark color; and the meconium will only be wanting when, by reason of the malformation of the intestinal canal, the reception and transport of the liquor amnii holding the vernix caseosa are prevented.—*Wien Wochenschrift*, 1858, No. 32.—*Med. Times and Gaz.*

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*Bismuth in Gleet and Leucorrhœa.* By M. GABY.

M. Gaby states that repeated trials have convinced him that injections of oxide of bismuth constitute the very best treatment of *gleety discharges*. Thirty parts are suspended in 200 of rose-water, and so injected as to leave as large a deposit of the salt as possible in the canal. Three injections *per diem* should be employed at first, and then fewer. He has collected 43 cases thus treated with success, five of which he briefly relates. *Urethral discharges*, unconnected with gonorrhœa, as observed in certain diatheses, in masturbation, venereal excesses, etc., and increasing in quantity even after pure connection, have been treated by this means in three cases. *Balanitis* and *balano-posthitis*, and *herpes præputialis* yield rapidly to bismuth, applied in powder after cleansing the part, and then covering with cotton. The various forms of *vulvar leucorrhœa* may be treated with bismuth. One of these is entirely confined to the vulva, whether appearing as a consequence of follicular vulvitis or without preceding inflammatory symptoms. The latter is often met with in little girls. Pregnancy, want of cleanliness, masturbation, worms, or contusion, are among the exciting causes. After removing all complication the bismuth acts upon the discharge like a specific. In the leucorrhœa of girls, powdering with bismuth is an excellent remedy. In ordinary vaginal leucorrhœa, occurring in women otherwise healthy, and having no other affection of the genito-urinary organs, the bismuth succeeds well. The cases of *urethra vagi-*

*nal leucorrhœa* are almost always of infectious origin. They have in some instances yielded to bismuth when resisting obstinately other remedies. It is to be remembered that all the cases in which the bismuth is useful are of the chronic description; and that pain, and other signs of acute inflammation, contra-indicate its employment.—*Bull. de Thérap.*, tome lv. pp. 193 and 259.—*Med. Times and Gazette*.

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*Iodide of Sodium.* By MR. URE.

Iodide of sodium may be prescribed in all cases in which the employment of iodide of potassium is indicated, as antidotal to various constitutional symptoms of syphilis, chiefly of the so-called tertiary group, and where mercury has been properly used beforehand; in certain forms of rheumatism; in chronic affections of the joints and bones of a scrofulous character, particularly where a stealthy inflammatory process has determined copious fibroplastic deposition or hypertrophy. If judiciously administered, it may be given in progressively increasing doses, where it is desirable to produce a decided alterative effect on the system. M. Gamberini has furnished a brief notice respecting its use in the volume of Schmidt's "*Jahrbücher*" for 1858. Reference is made to 116 cases of constitutional syphilis in which it had been exhibited, and where it was found to have acted more rapidly than iodide of potassium, and often proved efficacious where the latter drug had been of little or no avail. It is there recommended to be given as follows: one scruple is to be dissolved in three ounces of distilled water, and this is to be swallowed in divided doses in the course of the day. After the lapse of two or three days, the above amount is to be augmented by the addition of six grains; and so on until eventually the patient comes to take two drachms, or even more, of the salt daily; the time for taking each dose being an hour before meals.

Hitherto I have usually prescribed the iodide of sodium to the extent of five or six grains twice or thrice daily, dissolved in four ounces of compound decoction of sarsaparilla, which forms a convenient vehicle; occasionally, in pure water, with the addition of five grains of bicarbonate of soda to each dose; this serves to counteract acescency, and the consequent liberation of hydriodic acid in the stomach, which is sure to cause headache. In scrofulous complaints, I have given it combined with cod-liver oil, and with manifest benefit. A remarkable and unexpected effect was observed in one instance under this treatment for diseased bone, where a marked improvement of sight ensued from diminution of a nebulous condition of the cornea. In constitutional syphilis, I have found it advantageous occasionally to conjoin the use of the iodide with that of bichloride of mercury, should mercury have been previously withheld, or imperfectly introduced into the patient's system.

As a general rule, the iodide ought to be administered in plenty of liquid, and not on an empty stomach, as suggested by the above

writer. It is readily soluble in water, has a cooling saline taste, certainly preferable to that of the potassium compound, and by no means equally persistent in the throat.—*Lancet*.

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*Hypertrophic Lengthening of the Neck of the Uterus.*—M. Huguier read a long paper in two parts at the meetings of the Imperial Academy of Medicine, of March 1st and 7th, with the above title. The following are the conclusions:

1. The fall of the uterus, whether it is complete or incomplete, is not a single disease, but rather an *ensemble* of several diseases designated under a single name.

2. When the uterus appears externally, or when even the vagina is completely inverted, so that the womb, from the size of the tumor, in the centre of which it is found, seems entirely precipitated between the thighs, it is not, in the great majority of cases, because that it has fallen down and escaped completely from the pelvis, but rather that it has suffered a partial or general hypertrophic lengthening.

3. In the affection designated under the name of precipitation, the hypertrophic lengthening is not the exception, but rather the general rule.

4. Two principal varieties of longitudinal hypertrophy, the *sous* and the *sus*-vaginal, which constitute, in some sort, two different diseases, may simulate the descent and precipitation of the womb.

5. In the first kind of lengthening, the neck of the womb forms, in the cavity of the vagina, a more or less lengthened *cylindroid* or *conoid* projection, whose free extremity approaches the vulvar opening, or even engages between the lips of the part, without the vulvo-vaginal tube being shortened, invaginated, or inverted on itself.

6. It has been, until the present time, confounded with the falling and descent of the womb, when it has not been diagnosed, and treated for a polypus, a chronic inversion, a follicular cyst, a scirrhus of the neck, or a dropsy of this part.

7. No complete description has yet been given, although it has had very clear characteristics in its development, symptoms, and treatment.

8. The medical means and the divers kinds of cauterizations are only applicable to slight hypertrophies, and to those complicated with inflammation and engorgement.

9. Pessaries are the most often useless or dangerous.

10. When a hypertrophic lengthening of the neck of the uterus produces serious symptoms, and is from five to seven centimetres in length, there is but one veritable remedy, efficacious and curative, to be used, and that is the resection of the neck, at a half centimetre below the insertion of the vagina.

The author reports eight cases which confirm this precept.

11. The disease designated at the present time by the names of precipitation, or complete falling of the uterus, is not, very generally, any other thing than a longitudinal hypertrophy of the *sus*-vaginal portion

of the organ, the fundus and body remaining in the pelvic cavity, although the vagina may be entirely inverted, and the tumor hanging between the thighs may have an equal or greater length to that of the uterus in the normal state.

The exactness of this proposition is proved by historical researches, pathological, anatomical, and clinical facts.

12. The cases of hypertrophic lengthening of the *sus-vaginal* portion of the neck, which we find reported here and there in the authors of the last two centuries, and of the present one, have been overlooked, and entirely lost to science; the authors, even of these cases, have not drawn any practical conclusion, and have always confounded this affection with the veritable falling of the uterus.

13. We do not find, in scarce any work, the unexceptionable proof, semiotic and pathologico-anatomical, of the existence of the complete fall of the uterus.

14. On the contrary, the pathologico-anatomical facts which we have described, those that several of our colleagues have, since our observations, demonstrated to the Surgical Society, and those contained in the museum of Dupuytren, prove the frequency of the hypertrophic lengthening, and that of the fall of the neck only in the affection called *precipitation* of the womb.

15. The longitudinal hypertrophy of the *sus-vaginal* portion of the neck, and the fall of the uterus, have different pathological and semiotic characteristics, which distinguish these two affections.

16. The relaxation, the weakness and forced distention, no more than the destruction of the large or round ligaments, do not concur in a very efficacious manner to the fall of the uterus; this is not the case with analogous alterations of the utero-lumbar ligaments.

17. In the treatment of this disease we must not have recourse to a bloody operation, or surgical, properly called, until it produces serious accidents, and that we are sure that the medical means are insufficient.

18. All the operations which have been invented until the present time to fill the therapeutic indications which it demands, are insufficient. They may be useful in the case of simple fall of the uterus, without hypertrophic lengthening; and with this view they may remain to science.

19. In this hypertrophic lengthening of the neck, followed by precipitation of this part and inversion of the vagina, the only operation which can fulfill the principal indications, and which can be followed by success, is the amputation of the neck below the insertion of the vagina—more or less near the body of the organ, according to the degree of the lengthening.

20. This operation should never be practiced before having taken, previously, some precautions against consecutive inflammations. These precautions should be continued with the greatest care for fifteen or twenty days after the operation.

21. The arteries of the uterine tissue are very difficult to seize and ligate: to be able to act promptly, it will be necessary to use a tenaculum, which should be left until it comes away spontaneously.

22. The *écraseur linéaire* has seemed to me useful for terminating the section of the neck, especially if this part is very vascular.

23. When the disease is preceded by a rectocele or a voluminous cystocele, or with both of these affections at the same time, after having removed the neck, it may be necessary to operate separately on the hernia of the rectum and bladder, as has happened to me several times with success.

24. The operation is contra-indicated when the pelvic basin and vulvar opening are very large, a perineum more or less torn, and a considerable weakness of the soft parts, which form the floor of the basin.

25. If we do not operate when the conditions indicated in the preceding conclusion exist, the disease does not relapse, and the health becomes as good as it was before the development of the disease.—*Cin. Lancet and Observer, from Gazette Hebdomadaire.*

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#### EDITORIAL AND MISCELLANEOUS.

— Quarantine and Yellow Fever are fitting subjects for discussion at this season of the year. So think the Fellows of the Academy.

At the first regular meeting for the month of June, the subject of the personal communicability of yellow fever was taken up, and Dr. J. M. Smith read a long essay upon this point in relation to yellow fever. Dr. Smith is an advocate of its non-communicability. His paper was elaborate, logical, historical, and lengthy, but failed to advance any new ideas. Dr. Francis, the warm defender of the personal contagiousness of yellow fever, replied in his pleasant, fervid Johnsonian style, giving a charm and a character to the discussion of the evening, if it did not convince or convert by its argument. We always like to hear the venerable Doctor, for he warms up like a young man, and the periods of his speech roll out full and round, despite the effect of time on his voice. He is an antagonist worth having, for wisdom sits on his lip, and distills itself in honeyed words, and the personal knowledge from which he draws is rich and varied. Few have enjoyed similar experience, and few have cultivated it with so great a success.

The discussion for the evening here ended, the question still undecided; for "who shall decide when doctors disagree?"

Dr. Stirling then read a paper on Quarantine Regulations, embodying the remarks he had made at a former meeting of the Academy.

Following this, at a late hour, Dr. John O'Reilly read an Essay on

the Connection of the Nervous Centres of Animal and Organic Life, with the Results of Vivisections.

At the second meeting in June of the Academy, Dr. Isaacs read a paper upon Chylous or Milky Urine, relating the history of two cases which had recently been under his care.

Dr. Harris followed with the second part of his paper on the Philosophy of Quarantine. We have already spoken of this paper as a deferred one. It was promised to be read previous to the meeting of the Sanitary Convention in this city, but the author was obliged to defer the reading on account of sickness.

A part was read at the second meeting in May, and the paper was finished at the second meeting in June.

The first section of Dr. Harris's paper related to those laws of disease and principles of hygiene which are involved in the theory of Quarantine, or external sanitary regulations for commercial towns, and it also gave a *résumé* of facts respecting the propagation of small-pox, typhus fever, the plague, and Asiatic cholera; which diseases, with some others, the author of the paper distinguished as liable to epidemic diffusion, *by means of the reproduction of a specific propagating cause in or by the persons of the sick*. Yet none of this class, except small-pox, he regarded as strictly contagious; contingent and localizing conditions being necessary to the propagation of any others of the class.

That section of the paper read at the last meeting of the Academy was devoted particularly to yellow fever, which Dr. Harris regards as an infectious disease, that is, unconformable with any other, inasmuch as its specific propagating cause or virus *is incapable of reproduction in or by the human body*, yet possessing many attributes which ally it to other specific infections that are capable of personal reproduction; yet, again, being unlike all other known causes of infection, in its absolute *self-existence* and reproduction under circumstances peculiar to itself, or not known to be necessary conditions for the propagation of any other disease than yellow fever.

Our limits will only allow a brief notice of a few points made in the paper read by Dr. Harris.

The "difficulties in the history and literature of yellow fever" were shown to have arisen mainly from the influence of overshadowing hypothetical influences, and from occasional perversions of the truth by interested and selfish men; inducing extravagant or partial statements and baseless assertions on the one hand, and to a misplacement, suppression, and perversion of facts, on the other. But these



"difficulties of yellow fever" cannot prevent the truth from appearing in regard to the essential facts in every epidemic of the malady, as "the specific pathological history and characteristics of that fever will appear in all instances as the great tests by which we may certainly correct errors and misstatements." Several facts were given to illustrate this in the records of various epidemics, and the medical opinions of particular cases of the fever.

In a synopsis of the leading facts respecting the natural and etiological history of yellow fever, and the manner of its propagation, the author presented some original statements, and a condensed summary of facts connected with the cause and propagation of the fever as an exotic and transportable infection. The following points were made particularly prominent: That the natural area liable to the epidemic prevalence of the fever comprises but a comparatively small portion of the earth's surface, and that its native habitats are few, and that those habitats appear to be more numerous in the tropical islands and coasts of the Western than the Eastern Continent. The means of its diffusion and propagation were examined, and the relations of civic and nautical hygiene to the question of quarantine reforms were clearly stated. The conditions that serve to perpetuate the fever, or that prevent the transmission, or the localization of the propagating cause of the fever, were presented in an original light, but it was admitted that only those conditions—not the essential nature of the cause of the fever—had been ascertained. Evidences were adduced to prove that the infectious cause of the fever may multiply or reproduce itself to a limited extent even in a pure atmosphere, when once the virus of the fever obtains a sufficient lodgment to infect any point or space, however limited; but that the fever has never become extensively epidemic in any locality, without the concurrence of the known localizing conditions of pestilential diseases, whether in tropical or extra-tropical regions. Dr. Harris believes that the limited epidemic and very narrow zone of the infected district at Bay Ridge and on Staten Island, in 1856, serve to illustrate the former proposition, while the epidemics of New Orleans, Vera Cruz, and the sweeping visitations of the fever in Norfolk, in 1855, in Philadelphia, in 1797, and in this city, in 1795 and 1798, furnish proofs of the latter.

The conditions under which vessels, apartments, or places may become infected, were defined, and the theory and experience on the subject of disinfectants stated; a freezing temperature or a boiling heat being the only positive agencies for disinfection. Dr. Harris recommends the application of "dry" steam as the most certain and economical

for the disinfection of closed apartments, vessels, and such materials as will safely admit of its application.

The relations of the atmospheric air and various climatic conditions to the origin, propagation, and transportation of the infectious cause of the fever were presented in such manner as to lead to the conclusion that the infection can exist or be transmitted by the direct agency of the air, and yet that the infectious virus *may be* something more than a single miasma. He stated that "only such materials, packages, or spaces, as actually retain atmospheric air in considerable quantity from an infected locality, have ever been known to convey the propagating cause of the fever from place to place, or, in other words, to become *fomites* of infection in propagating yellow fever." It was further stated that "there exists no evidence that any of those material substances or *organic bodies* which possess the property of immediately decomposing the chemical constitution of the atmospheric air they may imbibe or retain, ever have propagated or conveyed the cause of the fever." The doctrine and evidences of personal contagion and infection were dissected, even to the famous Huntington cases.

Following a broad discussion of the varied and distinctive characteristics of yellow fever and other pestilent diseases, the nature and appliances of an external sanitary system adapted to the necessities of this port were defined; and as deduced from Dr. Harris's Essay, that Quarantine system which is required would be exceedingly simple, viz.: Suitable docks and warehouses, specially adapted to facilitate the unloading and transhipment of cargoes; the ventilation or disinfection of contaminated vessels and materials; and, for humanity's sake—not from any known necessity of the public health—proper hospital accommodations near the quarantine anchorage and warehouses for the sick of yellow fever and cholera—diseases that require medical care at the earliest possible moment. Floating hospitals were favorably regarded as a dernier resort under the existing circumstances, especially as "their" preservation from pestilential contamination might be the means of giving *free pratique* to medical and popular opinions that have long been held in quarantine by the blind dogmas of inevitable contagion and infection, and by their successful results "would help to break up that stultifying blockade of the moral sense and human reason, that with penalties of fire and death has forbidden the erection of quarantine hospitals on any spot of the *terra firma*."

— It often becomes the sad duty of the physician to witness scenes of distress beyond his ability either to avert or relieve. Death

frequently, in visiting a family, not only removes a loved parent, but deprives the surviving members of their chief reliance and support. The change from ease and affluence even, to that of want, occasioned by such a loss, is not infrequent. In such an event, the services of the physician are powerless. But how otherwise it might have been, had he, having informed himself upon the principles of Life Insurance, carried to the head of such a family, when in health, the advice which would have protected his heirs from such a calamity, by bringing to them the resources of a well-directed prudence and forethought, founded upon a reliance on the principles of Life Insurance!

Although indebted to the researches of physicians, in a great measure, for the basis of their operations, these institutions are less understood by physicians than any class of persons. Merchants, regarding them from a business point of view, hold them in high esteem as safe investments for their money, while, strange to say, physicians, whose profession is truly philanthropical, neither apply to them for themselves, nor advocate them in their practice as they should. This is owing to the fact of their being unacquainted with the practical workings of such companies.

For ourselves, we believe them to be eminently philanthropical in their nature, the result of a wise diversion of science into the channels of humanity.

We cannot give a full argument sustaining our belief in the space we now have at our command, but we would earnestly recommend to our professional brethren a careful study of the subject, both for their own sakes, and the benefit of many who might apply to them for advice upon the subject.

The system is said to have had its origin in Barcelona, in Spain, in the commencement of the fifteenth century; but the first practical application of it was made in England, in 1698, by the Mercers' Company. In England, at this day, there are over one hundred Life Insurance Companies, dispensing their blessings to all classes of people.

The first company instituted in this country was the Howard Life Insurance Company, of Boston, in 1825. Its business was, however, limited, so that it was not till about the year 1843, when the first Mutual Companies were formed, that the business became permanently established. Since then, however, their importance has become so apparent, their necessity so obvious, that they are increasing rapidly in number, to meet the requirements of the day.

The principle upon which life insurance is founded is the average duration of human life, and the object to be attained is to give the

benefit of this average to each person insured. To arrive at this law of average, extended observations have been made, and Tables of Mortality have been constructed; and from these it has been ascertained that events which apparently seem accidental, follow a certain law—which has been called the law of average mortality.

The first table having any pretension to accuracy and utility was published in London, by Dr. Halley, and was founded upon the registers of births and deaths, with the ages and sexes distinguished, kept for a period of five years, from 1687–91, by Dr. Neumann, in the city of Breslau, in Silesia.

The Tontine Societies of Italy had previously furnished data for a similar table, but, owing to the limited number of lives observed, the deductions were found to be unreliable. The Northampton Tables, which acquired great notoriety, were constructed by Dr. Price, of Northampton, England, from bills of mortality of a certain district, running over a period of more than forty years. These were also found defective, and were discarded, as well as several others; such as the Table of De Parcieux and the London Table. The Carlisle Table, which is now generally adopted by most, if not all offices, was constructed by Mr. Milne, from observations made upon a population of eight thousand persons, by Dr. Heysham, at Carlisle, England, during a period of nine years—1779–87.

From this it will be seen how closely connected members of our profession have been with the preliminary operations of these institutions. Knowing, then, as the educated physician must, the value of such statistical tables, and feeling, as he must, the benefit of such an institution as will protect a family from the distress which want and poverty bring, when death has deprived it of its principal support, he should study its operations, apply them to himself if he finds them good, and become an apostle of Life Insurance, for the sake of the blessings it bears to the afflicted in the time of need.

— We are sorry to announce among the mutations which attach to some medical journals, the discontinuance of the *Maine Medical and Surgical Reporter*, the *Montreal Chronicle*, and the *Louisville Medical Gazette*. A want of *real* support is the cause of this discontinuance in two of these instances. We say *real* support, for we do not mean that a list of subscribers sufficient for their support was wanting, but that the failure in these very subscribers to pay for their monthly news was the cause of their being given up. If physicians would pay promptly the small sum they promise to when subscribing for a journal, we should have less of such instances to chronicle.

We have much to congratulate ourselves in this respect, yet our list is by no means clean of delinquents, and we would respectfully suggest to these the propriety of paying us and all other journals in whose debt they may be. By so doing, they would quiet their own consciences, and give us an additional impetus to work for still greater improvements in the MONTHLY.

The *Louisville Medical Gazette* is discontinued on account of the illness of its editor.

— It is said that the vacancies in the New York Medical College have been filled by the transfer of Prof. E. R. Peaslee to the chair of Obstetrics and Diseases of Women and Children, made vacant by the resignation of Prof. B. F. Barker, and that Prof. Austin Flint, Jr., now of New York, has been appointed to the chair of Physiology and Microscopy, left open by the transfer of Dr. Peaslee.

— We learn that the *Preparatory School of Medicine* in this city, having been incorporated by a recent act of the Legislature, the Board of Trustees have created and filled the following chairs: Surgery—John O. Bronson, M.D. Midwifery and Diseases of Women and Children—Charles A. Budd, M.D. Anatomy—Godfrey Aigner, M.D. Chemistry and Toxicology—Bern. L. Budd, M.D. Legal Medicine—Hon. John H. Anthon. Physiology and Micrology—Charles K. Briddon, M.D. Botany and Materia Medica—George Thurber, M.D. General and Special Pathology—George A. Quimby, M.D. The Faculty are empowered, under certain restrictions, to confer the degree of "Bachelor of Medicine."

— If any of our readers wish a literary journal which will bring to them weekly the best articles of all the current Magazines of the day, we would commend to them *Littell's Living Age*. The recent numbers, in addition to the text, have each had a portrait of some one of the great men whose names are household words among us. A biographical sketch accompanies each portrait. Humboldt, Herschel, Bryant, have already appeared, among others. The foreign Reviews and Magazines furnish their best articles to this hebdomadal. It contains 64 double-column pages, and appears every week, at \$6 a year.

— The June No. of the *Buffalo Medical Journal* informs us that the former editor, Dr. Austin Flint, and his son, the present editor, Dr. Austin Flint, Jr., both intend hereafter to make New York their residence. We cordially welcome them.

The medical journal so long identified with their names has, with

the June number, assumed a new title, and is now called *The New York Monthly Review and Buffalo Medical Journal*, published simultaneously at New York and Buffalo.

To our *confrère* we extend our editorial congratulations. New York will afford him a wider field for his professional labors, so promisingly commenced, and the journal which has been so ably conducted under his charge in Buffalo, cannot fail to become here doubly valuable, from the increased facilities for medical intelligence which this city affords.

*Case of Poisoning by Phytolacca Decandra.*—Three young peasants having dug up some large fleshy roots, and, believing them to be of a cathartic nature, they ate a small quantity. An hour afterwards, all three observed that they had lost their strength; there was a general feeling of coldness and nausea. Two vomited, and had repeated stools; the third, who had eaten more than either of them, had neither vomiting nor griping, but much greater prostration. Flumiani, arriving half an hour afterwards, found the following symptoms: countenance more or less altered, resembling cholera patients, tongue almost normal, voice hoarse, skin cold and slightly blue, pulse depressed and small. There was complaint of a feeling of oppression at the epigastrium, with sensation of weight and extreme thirst.

As the poisoning was produced by a depressing substance, recourse was had to remedies of an opposite character—Malaga wine and rum. The root which had produced these results, being examined botanically, was pronounced to be that of the *Phytolacca decandra*, commonly known as *Poke-root*. Three hours after the attack, there was perfect reaction—a species of intoxication had followed the stupor, the cutaneous heat was elevated above the normal point, and the pulse was full. On the next day, the patients were well.—*Journ. de Chim. Med.*

L. H. S.

*New Anæsthetic Agent.*—Mons. A. Claisse announces, in the *Gaz. des Hôpitaux*, that he has employed the following method of producing local anesthesia, for some years, principally in the extraction of teeth, the lancing of paronychias, and other minor operations. A solution is made of camphor in ether. The part is rubbed with a sponge saturated with this solution for a minute, in the case of the gums, and then the operation is performed. Where any sensation of pain is felt, experience has shown the propriety of renewing the frictions, when the sensation of pain will either be greatly lessened or destroyed.

L. H. S.



*Chemical Composition of the Mollusca, considered with reference to their employment in medicine.*—A memoir was furnished the Academy of Medicine (Paris) on this subject by Fournier. He states that the marine species are richest in iodine, of which substance those living on land possess very little; the river mollusks occupy first rank as to the amount of sulphur in their composition, and phosphorus is found only existing in the nervous ganglia of the different mollusca. The proportion of sulphur and iodine contained in each agreeing with the chemical composition of the medicine in which it lives, induced the author to anticipate much advantage in a therapeutical way by charging the medicine itself with medicinal agents. He proposes now to make snails available therapeutically by feeding them, as it were, on iodine, sulphur, phosphorus, &c., or by causing them to assimilate opium, belladonna, digitalis, arsenic, &c.

Fournier received the thanks of the Academy for his paper, with a request that he would continue his experiments. The writer recollects, when a willful child, that his father enticed him to take a nauseous pill by inclosing it in a Chesapeake oyster. The medicine, in this form, was not unpalatable; he thus learned how oysters could be *medicated*. The French savant has gone considerable ahead of the American practice, and forces the mollusk *itself* to become medicinal, without the insertion of the medicine by the attentive parent or nurse. Surely this is a progressive age—and we would suggest as a motto to Fournier's next paper: *sic itur ad astra*.  
L. H. S.

— We continue our extracts from Dr. A. Mercer Adam's paper in the *Edinburgh Medical Journal*, entitled "Medical Notes from the Continent," by giving this month a sketch of Bamberger, the Professor of Clinical Medicine in the School of Würzburg, and the colleague of Kölliker and Scanzoni. We shall follow it by that of Scanzoni.

Bamberger, the Professor of Clinical Medicine, is another very eminent ornament of the Würzburg school. He is universally acknowledged to be one of the very best clinical teachers in Germany—possessing all the great qualifications for this office—to wit, quickness in diagnosis, skill in physical examinations, decision in treatment, and an intimate acquaintance with all the ancient and modern literature of the profession. He has a peculiar aptitude for imparting knowledge to others; a patient, kind manner with his students, and a very contagious enthusiasm for the advancement of science. I frequently listened to his clinical lectures on the cases in his wards, and was much pleased by his lucid and graphic expositions of all the subjects which he discussed. Among other curious cases which I saw under his treatment, were two of lead-poisoning from the use of snuff. Prof. B. told me that in Bavaria the snuff is usually sold in packages

lined with an amalgam of tin and lead, and that the acetic acid present in nearly all their snuff acts chemically on the lead, and causes the snuff to become impregnated with the acetate thus formed. In both cases, the characteristic paralysis of the extensor, and emaciation of the flexor muscles, was very well marked. Their treatment consisted in the use of sulphates, followed by the administration of iodide of potass, and the local use of galvanism. I find a few notes of some of his clinical lectures in my pocket-book. In one lecture, on small-pox, he discussed with great ability the possibility of other contagions—such as those of scarlatina, measles, and syphilis—co-existing in the same individual with that of variola. He related the case of a girl who was admitted into the hospital, complaining of fever, headache, chronic bronchitis, and slight conjunctivitis. Next day a maculated papular eruption appeared on the face; and as small-pox was prevalent at the time, the professor ordered the patient to be removed to the division of the hospital allotted to variola, believing that he had to deal with an incipient case of that disease. The following day, however, Bamberger saw that he had made an erroneous diagnosis, and that the case was only one of measles. So the patient was removed from the small-pox department, after having been there for twenty hours, back again to the clinical wards, where the disease ran through the ordinary course. The date of this patient's admission to hospital was the 17th January; and on the 1st February, when convalescent from measles, she was again attacked by febrile symptoms, headache, etc., and two days afterwards the eruption of variola distinctly appeared. In this case the contagion of small-pox must have been received during the presence of the infection of measles. Professor Bamberger said he had seen small-pox attack patients infected by syphilis; and although, in these cases, the pustules were distinctly and indubitably variolous, they degenerated, on several of the mucous membranes, into sores of a specific syphilitic character. He regarded this as proof that a true variolous pustule may, in a syphilitic individual, become directly transformed into a true syphilitic efflorescence; and that the pustules of small-pox, in such cases, may retain (at least, for some time) the characters of both diseases. And if this be so, said he, it seems to afford a decisive answer to the vexed question, whether or not constitutional syphilis can be communicated from a diseased to a healthy child by means of vaccine lymph. He admitted that, in our Parliamentary Blue Book on Small-Pox and Vaccination, the majority of eminent physicians had replied in the negative to this question, and were of opinion that in the lymph of a vaccine vesicle its own peculiar virus cannot coexist with the poison of syphilis. But, like Hamernjk, Bamberger believes in the possibility of syphilis being communicated by vaccination, although he asserts this opinion much more cautiously, and with less dogmatism, than the talented professor of Prague. Alluding to the experiments of Sigmund and Friedinger, of Vienna, who found that inoculation with a mixture of vaccine lymph and the pus of a chancre produced only an ordinary chancre, he said, that their results only showed that

the poison of a primitive sore was more powerful than vaccine virus, and did not prove that the modified infection of constitutional syphilis would act similarly. Dr. Heine, of Bamberg, had recorded the following among other cases in point, which had unfortunately escaped the notice of the Blue Book Commissioners, but which clearly prove the communicability of syphilis by vaccination. Thirteen children, born of healthy parents, were inoculated with vaccine lymph taken from the child of a syphilitic mother, which at the time was covered with bullæ, excoriations, and sores, and which soon afterwards died. Nine of these children were immediately affected by syphilis; phagadenic ulcers were formed at the points of inoculation, and glandular swellings, condylomata, etc., followed. In two of the four children who were not affected by the syphilis, the vaccination either produced no effect, or the vesicles never matured; and in the remaining two cases no result ensued, as the mothers, alarmed by the aspect of the child from which the lymph was taken, had removed the vaccine virus from the arm as soon as they could. Heine had also recorded the case of three young physicians, who inoculated themselves with vaccine lymph from a syphilitic child, as a foolhardy bravado; and two of them suffered from unmistakable syphilitic sores, etc., in consequence. The lecture concluded with an expression of the professor's conviction that, in the face of facts like these, none but the followers of Ricord, who disbelieve the communicability of secondary syphilis, could deny the *possibility* of this specific poison being communicated simultaneously with the virus of vaccine vesicles.

Professor Bamberger has contributed largely to medical literature, and is the author of two standard works in practical medicine. The first of these is his treatise on "Diseases of the Chylopoietic System," which forms one of the volumes of Virchow's *Handbuch der speciellen Pathologie und Therapie*. In a somewhat encyclopædic form, he therein discusses the anatomical characteristics, ætiology, symptoms, diagnosis, prognosis, and treatment of all the diseases which may affect the tract of the alimentary canal, or the liver, spleen, pancreas, etc. Bamberger was one of Oppolzer's most distinguished pupils, and in this work he gives a great many of the views of his eminent master, modified by his own experience, and the progress of medical science. His later work, recently published, on *Diseases of the Heart*, ranks as the first standard work on the subject in Germany, and has been received with an extraordinary amount of popular favor. It certainly deserves its high reputation; for it is an admirably written book, full of graphic delineations of all the various cardiac diseases, and withal a very systematically arranged treatise, of the most concise and practical nature. It contains an able exposition of the newest views both of British and Continental physicians; it is specially distinguished by an independent and truth-seeking spirit; it is pervaded by a high philosophic tone; and it is enriched by many original investigations. Thus, for example, the chapter on the mechanism of the heart's action contains much novel and valuable matter. The theories there advanced are founded on original obser-

ventions made in a case where a man had a large gash in his side, below the left nipple, which laid open the pericardium without injuring the substance of the heart, and allowed the insertion of the finger so as to feel the heart's action; and also upon a series of experiments on rabbits, performed conjointly with Prof. Kölliker. Bamberger has shown satisfactorily that, during the systole, the heart becomes shortened longitudinally, and broader transversely; that it moves downwards with each systole and during each inspiration, by means of stretching of the great vessels; that in thus descending it partially rotates round its own axis from left to right, so that, between its rotation and its descent, it seems to slide downward along the walls of the chest with a screw-like motion; and finally, that the impulse of the normal heart-stroke felt on the walls of the chest depends simply on the hardening and bulging (*Wölbung*) of the anterior ventricular wall, and of the apex. Again, he opposes the ingenious views propounded by Dr. William T. Gairdner, that in dilatation of the ventricle, without actual hypertrophy, valvular insufficiency occurs, on account of diminished contractility of the chamber, which prevents the papillary muscles—whose function, according to him, is to maintain tension and apposition of the valves in the direction of the orifice they close—being brought into the requisite approximation to one another. Bamberger affirms that the greatest tension of the *musculi papillares* cannot alter the position of the margins of the valves, because the *chordæ tendineæ* of the first class, which arise from the pillary muscles, are attached to the middle or base of the valves, instead of to their margins. The stream of the blood expands the free margins of the valves, and they are then fixed, and rendered tense by, the finer tendinous cords which do not arise from, and which are not acted on, by the groups of papillary muscles. His opinions are also very valuable on the connection which exists between Bright's disease and cardiac affections. He believes that in these cases the renal complaint is preceded or occasioned by the valvular disease. With the exception of one case, where endocarditis occurred in the course of *Morbus Brightii*, Bamberger, throughout his great experience of heart diseases, never saw an instance of the granular kidney preceding the lesion of the valves; but *au contraire*, he has witnessed, in numerous instances, the development of Bright's disease in patients having valvular affections. He acknowledges, however, that in such cases, the granular degeneration may often be no further advanced than its first or preliminary stage. As regards the relation between the cardiac hypertrophy, (especially of the left ventricle,) which so frequently coexists with Bright's disease, he admits that the primary affection is generally that of the kidneys; but he rejects all the mechanical theories of Traube, of Berlin, and others, who consider the hypertrophy to be dependent on derangement of the circulation, resulting from the obliteration of the renal capillaries which occurs during the shriveling and atrophy of the kidneys. For, as he well remarks, we may find dilatation and hypertrophy of the left ventricle present in the early stages of Bright's disease, where there is no

disturbance of the capillary circulation, as well as at a more advanced period of the disease. Moreover, he has shown, by a careful analysis of an extensive series of cases, that the cardiac hypertrophy in granular kidney often affects the whole of the heart, and is the result of inflammatory affections, (peri myo and endocarditis,) of fatty or bacony degenerations of the organ, or of synchronous affections of the lungs. He regards all purely mechanical theories as quite untenable, and thinks that in most cases the cardiac hypertrophy in cases of Bright's disease depends on partial degenerations of the organ itself, arising from certain *vital conditions*, which, as yet, are not accurately understood. Finally, I would direct attention to Bamberger's views on the treatment of pericarditis. He deprecates all heroic antiphlogistic remedies, and is opposed alike to venesection and the use of mercury, as recommended by Graves and other English physicians. The results obtained by his treatment of the disease are very encouraging. Of thirty-four cases of pericarditis treated by him, which were either quite uncomplicated, or dependent on acute rheumatism, pneumonia, or pleuritis, only two died, one of which was a typhus patient with pneumonia, and the other a woman, eighty-six years old, with the addition of double pneumonia. Of twenty-nine cases, where he found the pericarditis complicated with incurable affections, such as aneurisms, heart disease, cancer, and Bright's disease, he had only five recoveries. The treatment which he recommends consists in leechings, cataplasms, or blisters locally, and the internal use of digitalis, neutral salts, nitrate and tartrate of antimony, and also of opiates when necessary.

The writer may add that he is at present engaged, with the consent and co-operation of Professor Bamberger, in preparing an English translation of this work for publication in this country. In this edition an explanation will be given of the differences (where such exist) between the German and English schools, so that the work may be completely intelligible to readers unacquainted with the peculiarities of German medicine.

*Arrest of Singultus and Borborygmus by fixing the Diaphragm.*—

Dr. Wolff states that he has frequently relieved obstinate hiccough occurring in diseased and other conditions by the following procedure. The patient must take a deep inspiration, and then keep the abdomen forcibly expanded as when straining hard at stool, giving way to the necessity of respiration as seldom as possible, and then by rapid inspiration. It requires some practice before success can be obtained. The same process is of great use in the borborygmi to which ladies are often subject.—*Deutsche Klinik*, 1858, No. 47.

*Iodine and Glycerine in Scrofulous Ozæna.*—Dr. Campbell strongly recommends as an application, to be made three or four times daily, two grains of iodine dissolved in an ounce of glycerine, giving also internally three times a day in sweetened water, a table-spoonful of a mixture composed of iod. pot. ʒii. Huxham's tr. of bark, ʒviii.—*Moniteur des Hôp.* p. 578.



— We are indebted to the kindness of Mr. Wiley, of this city, for the permission of placing before our readers the first chapter of the translation of Dr. Von Dueben's work on Microscopical Diagnosis, which is being prepared for the press by Dr. Bauer, of Brooklyn. The succeeding chapters are very interesting, and are fully illustrated. The work, originally written in Swedish, has been translated into the German, and has been received with high praises by the savans of Germany. The cuts for the American translation have been engraved under the eye of Dr. Bauer, by a young artist of this city, Mr. Thomas Cuzner. Whoever has seen the original cuts, and compared them with the proofs taken from the blocks prepared by Mr. Cuzner, consider the latter in every respect faithful copies, preserving admirably the beauty of execution of the originals.

*Books and Pamphlets Received.*

A Treatise on Gonorrhœa and Syphilis. By Silas Durkee, M.D., &c., with 8 colored plates. Boston: John P. Jewett & Co. 1859.

Elements of Medicine: A compendious View of Pathology and Therapeutics; or the History and Treatment of Diseases. By Samuel Henry Dickson, M.D., LL.D., &c. Second edition, revised. Philadelphia: Blanchard & Lea. 1859.

A Manual of Elementary Chemistry: Theoretical and Practical. By George Fownes, F.R.S., &c. From the seventh revised and corrected London edition. Edited by Robert Bridges, M.D., &c. Philadelphia: Blanchard & Lea. 1859.

Urinary Deposits: Their Diagnosis, Pathology, and Therapeutical Indications. By Golding Bird, M.D., F.R.S., &c. Edited by Edmund Lloyd Birkett, M.D., &c. A new American from the fifth London edition, with 80 illustrations on wood. Philadelphia: Blanchard & Lea. 1859.

Anatomy: Descriptive and Surgical. By Henry Gray, F.R.S., &c. The Drawings by H. V. Carter, M.D. With 363 engravings on wood. Philadelphia: Blanchard & Lea. 1859.

The New American Cyclopædia: A popular Dictionary of General Knowledge. Edited by George Ripley & Charles A. Dana. Vol. VI. Cough—Education. New York: D. Appleton & Co.

The Report of the Resident Physician of the N. Y. City Lunatic Asylum, Blackwell's Island, for the year 1858.

The Brooklyn City Hospital in 1858, and the Address by J. C. Hutchinson, M.D., one of the Attending Surgeons, delivered at the inauguration of the Pathological Hall, Nov. 25, 1858.

Medical Heroism: Address before the Philadelphia Co. Medical Society, delivered Feb. 24, 1859. By John Bell, M.D., &c.

Transactions of the N. J. State Medical Society for 1859, held at the city of Trenton, Jan. 25 and 26, 1859.

Annual Catalogue and Announcement of the St. Louis Medical College. Session, 1859-'60.